HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 18, NO. 8, ABSTRACTS 1106-1263. AUGUST 1978

LONDON: HER MAJESTY'S STATIONERY OFFICE

£1.10 net

Hospital Abstracts aims to cover the whole field of hospitals and their administration, with the exception of strictly medical and related professional matters. The abstracts purport to be fair summaries of the original papers; no responsibility can be accepted by the Department of Health and Social Security for the statements or opinions expressed in them.

Copies of publications and reprints of articles, for early notice in **Hospital Abstracts**, are invited. They should be addressed to: The Librarian, Department of Health and Social Security, Alexander Fleming House, Elephant and Castle, London, SE1 6BY, (01-407 5522, ext. 6954 or 7854) to whom also correspondence relating to the contents of the journal should be sent.

Hospital Abstracts is published monthly by Her Majesty's Stationery Office and is obtainable directly from the addresses shown on cover page iv, price £1.10 (£1.22 by post). Annual subscription £15.86 including postage. Subscriptions and orders by post should be addressed to Her Majesty's Stationery Office, P.O. Box 569, London, SE1 9NH.

PHOTOCOPYING SERVICE

Single copies of journal articles summarized in **Hospital Abstracts** can usually be supplied. There is a charge of 12½p a page but the service is free to libraries serving staff of the British National Health Service. Requests must be made on the official form, copies of which (with details of the photocopying service) may be obtained from the Library, Department of Health and Social Security, Room A108, Alexander Fleming House, Elephant and Castle, London, SE1 6BY.

HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE
PREPARED BY THE DEPARTMENT OF HEALTH
AND SOCIAL SECURITY

VOLUME 18, NO. 8, ABSTRACTS 1106-1263. AUGUST 1978
LONDON: HER MAJESTY'S STATIONERY OFFICE

© *Crown copyright 1978*

First published 1978

ISBN 0 11 722635 1
ISSN 0018-5507

CONTENTS

	page
Hospitals in Great Britain	391
Hospitals in other countries	391
Planning, design and construction	394
Hospital design	395
Design of individual general hospitals	396
Extensions and reconstructions	399
Design of special departments	400
Design of special hospitals or units	400
Engineering services	400
Electrical installations and equipment	400
Transport in general	401
Heating	401
Ventilation and air-conditioning	402
Insulation against sound and temperature	402
Maintenance of buildings and equipment	402
Equipment, fittings, furniture	402
Equipment generally	402
Medical equipment	403
Staff generally	403
Staff complements	403
Conditions of service	403
Staff management	403
Staff training	403
Staff welfare	403
Special classes of staff	404
Administrative and clerical staff	404
Medical staff	404
Nursing staff	406
Other professional and technical staff	409
Ancillary staff	410
Organization and administration	410
Governing bodies, committees	411
Economics of hospital management	411
Bed occupancy, economic use of beds	413
Electronic data processing	413
Medical records	414
Public relations	414
Legal aspects of hospital administration	415
Finance and accounting	415
Finance	415
Hospital accounting	418
Supplies and stores	418
Purchasing	418
Catering, dietetics, kitchens	418
Hospital catering	418
Dietetics in the hospital	419
Kitchens	420
Hospital domestic management	420
Domestic work	420
Hygiene in the hospital	420
Hospital infections	421
Sources of infection	421
Prevention and control	422
Hygiene in the operating theatre	422
Sterilization	422
Air hygiene	423
Disposal of waste	423
Safety measures	424
Accidents, generally	424
Radiation hazards	424
The patient	424
Admission and reception	424
Welfare of the patient	425
Hospital social work	427
Transport of patients	427
Hospital care	428
Discharge of patients	430
Home care, after-care	430
Special departments	431
Operating suites	431
Anaesthesia	431
Pharmacy	431
Laboratories	435
Diagnostic X-ray department	436
Rehabilitation	436
Physiotherapy department	436
Departments for special therapy	437
Intensive care units	438
Special hospitals and units	438
Out-patient	438
Casualty and accident	438
Day hospitals	439
Chest	439
Children	440
Geriatrics and long-stay	441
Cancer	443
Neurology and neurosurgery	443
Cardiology	444
Urology	444
Surgery	445
Maternity	445
Psychiatry	446
Author index	v
Addresses of publications	vi

HOSPITAL ABSTRACTS

Vol. 18 August 1978 No. 8

HOSPITALS IN GREAT BRITAIN

1106. RHODES, P. **Doctor John Leake's hospital: a history of the General Lying-in Hospital, York Road, Lambeth, 1765-1971: the birth, life and death of a maternity hospital.** London, Davis-Poynter, 1977, 400pp. £12.00

This book traces the process of the birth, life and death of a famous hospital, the General Lying-in Hospital, York Road, London, which finally closed its doors in 1971. It had been in existence for 204 years, and was first opened to patients in 1767. The changes in political, medical and social attitudes over the 204 years of its history are described, together with their effects upon the hospital, in order that the functions of the hospital can be seen in their social context. Four appendices are included on: the final party; past presidents of the hospital; medical staff; and past matrons of the hospital. There is also a bibliography of 17 items.

1107. PAULLEY, J. W. **The state of British medicine—2. Role of the district or non-teaching hospital.** *Journal of the Royal Society of Medicine*, London, 1978, Feb., vol. 71, no. 2, pp. 88-94.

The functions of a district hospital can be divided into the following: (i) provision of essential services; (ii) primary education of nurses and ancillary workers; (iii) continuing education for all groups, including doctors; and (iv) research. The best maximum size for a district hospital is 600 beds, sometimes with shared specialized departments, but each with separate administration and staff. The district hospital must be responsive to changing needs, a flexibility which is anathema to some tidy-minded planners. The idea of community care is now much favoured, but there have been no pilot studies and no attempts at costing. The author gives evidence to explain why the claim that acute hospitals have achieved little, should be strongly contested. Long waiting lists for acute care are keeping the normally healthy away from their work.

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 1115, 1139, 1252

1108. SPAZIANTE, G. Ospedali ed universita. **[Hospitals and the university.]** *Ospedale*, Torino, 1977, Nov., vol. 30, no. 11, pp. 267-271.

The author examines the problems of achieving co-operation between the universities and hospitals on undergraduate medical training. The problems are historical, legal, political, economic, and psychological in nature. In Lombardy it has been proposed that certain hospitals only be selected for involvement in undergraduate training. The intention is to involve hospital doctors in teaching, and to extend post-graduate instruction and in-service training for doctors. The author suggests that the number of hospitals selected should be increased, that the existing structures be used rationally, that teaching should include actual practical work, that there should be efficiency

checks on the students, and that proper structures be developed so that fragmentation and over-specialization are avoided.

1109. MÜLLER, H.-W. Die Situation der Krankenhäuser in Gegenwart und Zukunft aus der Sicht der Krankenhausträger. **[The present and future situation of hospitals from the point of view of the hospital institutions.]** *Krankenhaus*, Stuttgart, 1977, Nov., vol. 69, no. 11, pp. 415-419.

The author, who is Chief Administrator of the German Hospital Association, points out that though hospitals have developed from institutions for the care of the poor and pest houses into establishments employing advanced medical technology for the treatment of disease, the humane aspect of their work remains paramount. The proposed radical revision of hospital legislation which only came into force four years ago is going to put a great strain on hospitals and their staff. While the attempt to keep costs in check must not result in reduced services for the sick, all (hospital authorities, patients and staff) must be made cost conscious so that funds are used to the best advantage. Sensational press headlines implying that hospitals are wasting money are decried and the oft repeated statement that hospitals are the most expensive part of the health service refuted. In fact national health insurance pays out 9.2 per cent more for non-hospital medical care than for hospital services. No firm forecast can be made on the future of hospitals in Western Germany but the fact that they have developed over the centuries from hostels to institutions of advanced medical treatment, and recovered from the devastation of the second world war without benefit of planning or grant-giving authorities, gives ground for hope that they will overcome present and future crises.

1110. IBSEN, E. Aktuelle spørsmål innen sygehusvirksomheden i Danmark. **[Current questions in the Danish hospital service.]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 369-376.

The Danish hospital system is organized in 16 independent regions. Since 1973 the county hospital service has taken over responsibility for 'cures' and convalescence, somatic hospitals, the former private hospitals, psychiatric hospitals and the special orthpaedic institutions. In 1980 counties will also become responsible for all the handicapped: the mentally handicapped, blind, deaf, hard-of-hearing, epileptics and speech defectives. Counties must return long-term plans for the various areas to government by fixed dates. 'National' specialties, for which the overall need is estimated to amount to one bed per 2,000 of the population, will continue to be centered on the four teaching hospitals. *Rigshospitalet* (The National Hospital) at Copenhagen University is likely to continue under State control. Contact between the county hospitals and municipal social and factory medical services will be extended. The Ministry of the Interior has established a Financial Priorities Committee for: indicating economies and rationalization measures; demarcating fields of responsibility between doctors and the hospitals; increasing resources for prophylactic medicine; and drawing up investment priorities. Medical training has been slightly amended to bring it into line with Common Market agreements; the chief change is that after full qualification and registration a doctor will have to undergo a further 18 months' training before being allowed to practise for the Health Service or as a specialist. There is still the problem of out-of-date establishment levels in the hospitals, resulting in some housemen having 12 hours or more on duty several days running whilst others draw unemployment benefit.

1111. ØIE, J. Regionsykehuset i Trondheim. **[The Regional Hospital Trondheim.]** *Norsk Sykehustidende*, Oslo, 1978, March, vol. 51, no. 3, pp. 53-56, 58-59.

Trondheim Central Hospital (916 beds) was upgraded to a Regional Hospital in 1974 and to a university teaching hospital in 1975, with another 311 beds in associated institutions. There were 31,800 in-patients in 1977, with an average of 1,081 in-patients at any one time, giving a total of 394,500 bed-days. The cost of running the hospital was n.kr. 314 million (£35 million) gross, minus n.kr. 37 million (£4 million) income, or n.kr. 277 million (£31 million) net. Trondheim Hospital acts as the regional hospital for three north-western counties and their 600,000 inhabitants; as the central hospital for the 250,000 inhabitants of South Trondheim and parts of Møre-and-Rømsdal; and as the local hospital for the 200,000 population of South Trondheim. The number of beds is expected to increase to 1,300 or 1,400 and the total floor area from its present 65,000 m^2 to 120,000-130,000 m^2, plus some 30,000 m^2 in ancillary institutions. The county's long-term plan defines the hospital's area of medical responsibility and lays down the limits to the physical framework of the buildings: internal communications, permitted heights and areas of buildings, etc. The extensions are expected to cost n.kr. 30 to 50 million (£3-5 million) in 1978 values. The completed hospital is illustrated in a photograph of a model, and the present buildings are shown in a full-page colour photograph.

1112. KÄRNEK, R. Aktuella spörsmål i svensk sjukvårdsverksamhet. **[Current problems facing the Swedish health service.]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 377-387.

The two main problems experienced by the Swedish health service since 1965 have been finance and staffing. The health service doubled in size (and number of beds), despite the fact that the number of acute beds was unchanged and the number of psychiatric places was reduced, between 1965 and 1970. The number of patients has increased by two per cent per annum whilst the number of hospital beds has decreased by 0.2 per cent per annum, County health service plans reckon on a population with an increasing number of old-age pensioners, i.e. developments continuing as at present. National health service plans for the 1980's involve: (i) decentralized, easily accessible out-patient care; (ii) extended long-term care; (iii) more active psychiatric care; and (iv) more co-ordinated overall health care. The staff situation can be summarized by saying that the country's health service staff as a whole has a high average age and lacks long-term trained personnel (sisters, physiotherapists, occupational therapists and specialist doctors). Women comprise the majority of the service's employees, and there is no reserve of labour. The health and community social services will have to co-ordinate their activities far more than hitherto, and more research is needed into the causes of e.g. alcoholism, and the prevention of disease. Changes in the basic premises on which the health service is constructed demand an increase in concentration on the overall environment of health and work situations.

1113. PETTERSON, B. Sjukvårdens inre organisation såsom stöd till dess huvudfunktion, sjukvården. **[The internal organisation of the hospital service in relation to its main function, nursing.]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 395-401.

The hospital in Sweden is in a period of rapid evolution brought about by develop-

ments in the field of medicine, with its 42 recognized specialties and a sea of sub-specialties, and by specialization in the administrative and political fields. Hospitals are also under a double command—from leading medical figures and from politicians. The politicians attempt to direct the flow of funds into construction and investments which will bring the maximum benefit to the population. The medical profession's activities concern matters of life and death; but they are *also* concerned with guarding small specialty and sub-specialty empires. Linköping University has started a research project (TEMA) into the organization of the health service, investigating questions of: relationship between political aims and actual decision-making; effects of allocation of resources (e.g. between advanced therapy and prevention); factors affecting rationality in decision making, etc. A new form of internal organization, away from the hierarchical system based on the ward round, is desirable. Team care is not a panacea, but it can improve the patient's condition, and it aids recruiting. Democracy demands the co-operation of active, enquiring knowledgeable minds, a flexible, stimulating system to work for, and that decisions are broadly based and not left to unintelligible and narrow experts.

1114. MÄKELÄ, V. Sjukhusets inre organisation såsom stöd till dess huvud-funktion, sjukvården. **[Internal organization as a support to the main function of the hospital.]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 401-403.

A main conclusion of a report on the Finnish hospital system was that, due to specialization and differentiation in all sectors of the hospital, far too many trivial matters have to pass upward to far too high an administrative level for decisions to be taken. The right to take decisions *must* be delegated downwards to the responsible officials. The Finnish government is carrying out a nation-wide project planning procedure, with separate plans for hospitals and health centres. The aims are to co-ordinate their activities and to make each central hospital district self-sufficient for all medical and ancillary services by 1982. The economic responsibility for each health service unit is to be handed to the person running that unit, subject to the procedures of follow-up and effectivity analysis, replacing the present system of centralized decision-making and subsequent accounting procedures. This will make work easier, more rewarding and more flexible, and will free the higher echelons of administration and command for the discussion of matters of principle and decisions on major questions.

PLANNING, DESIGN AND CONSTRUCTION

1115. L'hôpital de demain. **[The hospital of tomorrow.]** *Gestions Hospitalières*, Mantes, 1977, Dec., no. 171, pp. 997-1056.

Nine articles on a variety of topics cover: (i) the dissatisfaction among hospital staff, particularly the nurses, in France to-day, and the reasons for it; (ii) the structure of the hospital of to-morrow, the impact of the new emergency services, and the need to use expensive equipment intensively; (iii) the importance of new techniques, including computers; (iv) an architect's view that the hospital must be attractive as well as functional; (v) the need for and problems involved in planning and managing the hospital; (vi) the hospital environment, its psychological impact, and the role of the

director of nursing; (vii) philosophy and the hospital; (viii) health and environment; and (ix) a patient's critical view of the impersonality of the hospital system.

1116. PETERSEN, K. and SØNDERGÅRD, W. Brugerrepräsentanters rolle i sygehusbyggeri. **[The role of user representatives in hospital building.]** *Tidsskrift for danske Sygehuse*, København, 1978, Feb., vol. 54, no. 2, pp. 29-33.

User representatives are those representatives of user groups (students, patients, the handicapped etc.) who take part in hospital construction matters. In general they have little experience of construction and planning, and therefore need advice. A set of guidelines for such persons must comprise a review of hospital planning, hospital construction, and the user representative's responsibilities. A hospital plan must assess the rate at which aims can be realized (timetabling); lay down financial guidelines; establish co-operation between the hospital service and relevant groups such as doctors, nursing homes etc.; and attempt to co-ordinate plans with existing hospitals. The parties involved in the actual construction comprise: (i) the client's representatives i.e. county politicians, county and local hospital management, and users' representatives; (ii) the technical and architectural consultants; (iii) contractors; and (iv) the authorities. All these groups can only operate efficiently if each knows his own field of responsibility clearly and unambiguously formulated from the start. Users' representatives must be heard on staffing; the design, equipment and furnishing of working areas; hygiene, noise levels, safety, canteens, recreational areas, toilets, garages and accessibility in general, plus selection of materials, colours and decoration. Their influence must not just be formal, but must be acted on within the economic framework available. The article is illustrated with a series of diagrams and flowcharts setting out the processes described.

HOSPITAL DESIGN

See also Abstract No. 1127

1117. CASAS, S. El problema de la 'dimension optima' de un hospital. **[The problem of the 'optimum size' of a hospital.]** *Policlinica*, Barcelona, 1978, Jan., no. 43, pp. 20-22.

Generally speaking the optimum size of an enterprise is that at which the unit cost of the product is lowest. This concept cannot be applied to the hospital enterprise, nor, in the author's opinion, should we accept the current notion that the optimum size for a hospital is between 200- and 600-beds. He suggests that the optimum size is that which best meets the needs of a given community and that one way of determining what that community is is to divide the country into regions of approximately one million inhabitants. Within each region, local or rural hospitals of fewer than 80-beds will supply the basic surgical and medical treatment for the surrounding population; they will be linked by ambulance to district or provincial hospitals, which will have 300-600 beds and provide a fairly complete range of diagnostic and therapeutic facilities. Finally, the regional, or university hospital, will provide the high technology medicine and train future generations of doctors. This type of organization ensures that most patients do not have to go far from home for treatment and that each hospital is used efficiently.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

See also Abstract No. 1111

1118. DREMONT, P. L'hôpital de Semur en Auxois. **[Semur en Auxois Hospital.]** *Gestions Hospitalières*, Mantes, 1978, Jan., no. 172, pp. 62-63.

A brief description is given of the new hospital at Semur en Auxois, situated outside the walls of the old town and designed by M. Phelouzat. It began with a 136-bed psychiatric unit, which was constructed in 1972, using standardized ward units. This was followed by a 50-bed paediatric psychiatry unit in 1975, and the main general hospital building, containing 225 medical, surgical, obstetric, and convalescent beds together with all the technical services, was completed in 1977. Here again the wards were standardized H-type units. A training school for 60 student nurses was built at the same time and in the same style. The total cost of the general hospital building was 22 million French francs. An aerial photograph of the site and a map accompany the description.

1119. RAGOUILLIAUX, R. Le nouvel hôpital de Valenciennes. **[The new hospital of Valenciennes.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Feb., vol. 33, no. 389, pp. 45-50.

The new 630-bed hospital at Valenciennes, due to be completed by 1980, has been designed by Maignan, Valentin, and Zagradsky. The lower ground floor and ground floor will contain the technical services and the first floor the technical medical services, including the emergency department (18 beds), the resuscitation unit (29 beds), the central radiology department, and two hyperaseptic and five aseptic operating theatres. The wards are to be housed in four circular blocks above this area. There will be 30 beds on each floor, arranged as 10 single rooms, eight two-bedded rooms, and one four-bedded room. A total of 240 beds will be allocated to surgical cases, 180 to paediatric cases, and 165 to medical specialities. The description contains three diagrams and two photographs of work in progress.

1120. Réalisations hospitaliers. **[New hospital developments.]** *Gestions Hospitalières*, Mantes, 1977, Dec., no. 171, pp. 1135-1190.

Ten articles on new or modernized French hospitals discuss: (i) the Gustave Roussy Cancer Institute, completely rebuilt, with fewer beds than before and a larger out-patient department; (ii) the children's hospital at Nancy; (iii) the children's hospital at Angers where one quarter of the beds have been turned over to adults, and out-patient services extended; (iv) a general article on psychiatric hospitals, which again will be smaller in the future; (v) the geriatric hospital at Mulhouse which has three houses for able-bodied pensioners; (vi) a day hospital for geriatric patients at Clichy which has not yet been opened because no decision has been reached as to who will pay the doctors for their services; (vii) two hospitals in Paris, one of which, the Bicêtre (viii) has been rebuilt and the other, the Lariboisière (ix) modernized; and, finally (x) a brief look at Swiss hospitals where the trend is to reduce spending as much as possible.

1121. Samenwerking tussen Groningen en Enschede: Ziekenzorg eerlang in het nieuw. **[Co-operation between Groningen and Enschede: the Ziekenzorg Hospital will soon be built.]** *Instelling-management*, Amsterdam, 1978, March 22, vol. 10, no. 3, pp. 23-26.

The building of this 465-bed hospital with a potential enlargement of 35 beds was started on the 16th of February and should be completed within 36 months. There are seven storeys, of which the basement houses the catering, domestic and technical services plus the mortuary; on the ground floor are the polyclinic with examination and treatment rooms, the casualty department, admission, X-ray and functional units, physiotherapy, laboratory, isotope diagnostic and radiotherapy unit, central hall, reception, administrative offices, restaurant and recreation rooms; on the first floor is the operating theatre complex including recovery room, intensive care unit, central sterilization, pharmacy and laboratory. The second to the fourth floor inclusive accommodate the wards. Each floor has approximately 130 beds divided over four square-shaped ward units grouped round a hall with reception, lifts, day-rooms, offices, examination rooms, cloakrooms, etc. Each ward unit comprises approximately 33 beds divided into six four-bedded, three double and three single rooms, each with its own toilet facilities, grouped round a centre service block. Beds for special care are provided on the different floors according to discipline. The paper includes a photograph of a hospital model, a model drawing, a plan of a ward unit and a list of contributors.

1122. EKEDORFF, L. Utbyggnad av Uddevalla Centrallasarett—Block CS. **[The block CS extension to Uddevalla District Hospital, Sweden.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 247-248, 250.

Like many hospitals built in the 1950s, Uddevalla Central Hospital turned out to be too small by the 1970s: the number of beds is adequate but practically all admission and treatment departments were short of space. The vertical communication system in the hospital is situated in the bridge zone between A, B and C Blocks, so the rear of the new four storey CS Block is connected to the same part. A 12- to 14-bed intensive care unit lies on the third (top) floor (illustrated), connected to the original department of surgery. The central operating department, with recovery, intensive care and coronary infarct wards, will eventually all be grouped together. The department of gynaecology occupies the second floor and paediatrics is on the first floor. The entrance, medical library and teaching facilities, home nursing centre and aids advisory service occupy the ground floor. The orthopaedic workshop, electronic workshop and photographic laboratories are in the upper basement, as well as the staff changing rooms and stores. The lower basement houses technical installations, the central staff changing room and exercise gymnasium. The new construction has freed the basement of B Block for use as an admissions department. The first floor of B Block contains the department of obstetrics and gynaecological surgery, and this is due for reconstruction and extension. The volume of the extension is 23,000 m^3 and the area is 6,800 m^2. Cost of construction was s.k.r. 19½ million. Besides a plan of the third floor, there is a small perspective drawing of the entire hospital.

1123. LUNTEREN, H. van. Lasarettet i Helsingborg. **[Helsingborg Hospital.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 221, 223-224, 227-228, 231-232.

The central block at Helsingborg Hospital was opened at the beginning of 1975, as a 739-bed central hospital serving the Helsingborg region (population: 158,000). 250,000 out-patients are expected each year. The area available was 120,000 m^2, on which the administrative offices, multi-storey car park, engineering block and various small buildings had been erected in 1970. The residual area is a city park. The hospital is designed as a five-storey cruciform central tower over a two-storey square raft, with a total area of 100,000 m^2. All out-patient facilities are on the ground floor; and acute admissions, detoxication centre, and central supply departments are in the basement. The plans of the eight-ward units are based on a computer simulation of the internal traffic situation in four hypothetical designs of hospitals presented at a building symposium in 1969. The most economical system was selected, representing a hypothetical saving of s.kr. 1,100,000 per year in internal communication costs. The method of construction was chosen to ensure flexibility, and is based on a module of 72×72 m. The load-bearing central concrete pillars are 75×75 cm. in the two-storey portion and 50×50 cm. in the tower block. The rooms are designed on a 12 m module. Costs had to be kept within the budget of s.kr. 215 million (1971 prices), so one of the original three storeys of the raft building was omitted, bringing the final cost down to s.kr. 193.7 million. The article is illustrated with one exterior and three interior photographs.

1124. Organisation d'ouverture d'un hôpital nouveau. **[A new hospital—organization and methods.]** *Gestions Hospitalières*, Mantes, 1977, Dec., no. 171, pp. 1059-1088.

Four articles on organizing the opening of a new hospital cover: (i) advice on how to analyse staffing and equipment requirements, financial planning, and what procedures to follow; (ii) an account of experience in transferring to a new 500-bed hospital at La Rochelle; (iii) a director of nursing's account of her involvement in every stage of planning—analysis, preparation, installation, and assessment—for a new hospital at Toulouse; and (iv) a description of the features of a Duquesne-type hospital and the procedures for constructing one. An interesting feature here is that specifications for the furnishings are drawn up in consultation with the Union of Public Purchasing Groups (UPPG) and the National Centre for Hospital Facilities; the orders are then grouped and purchases made by the UPPG in order to obtain the best possible terms from the manufacturers.

1125. Le plateau technique. **[The technical base (for hospital construction).]** *Gestions Hospitalières*, Mantes, 1977, Dec., no. 171, pp. 1091-1129.

Five articles on the theme of hospital construction cover: (i) a useful definition of the minimum technical base for an acute, general hospital; (ii) a discussion of the possible dichotomy between the use of standard hospital designs (Beaune, Duquesne, Fontenoy), standardized ward units, and the need for flexibility in design; (iii) an explanation of the 1973 reform of engineering contracts; (iv) the role of the hygienist: to advise at every stage, from the choice of a site for the new hospital to the choice of internal materials; and (v) security aspects. There are brief commentaries on a number of points, including protection of the piping system, routes for disposing of refuse and dirty linen,

lighting and heating installations, insulation, fire doors, paint, fire-fighting and fire-detection equipment, and the need for a safety officer to monitor the course of construction.

EXTENSIONS AND RECONSTRUCTIONS

See also Abstract No. 1111

1126. LOTZ, H. W. Wege zur Erneuerung von Krankenhausanlagen. **[The modernization of hospital building.]** *Krankenhaus*, Stuttgart, 1977, Nov., vol. 69, no. 11, pp. 423-426.

Apart from financial saving it is often advantageous to modernize and/or extend an existing hospital rather than build a new one for the following reasons: work can be done in stages on the existing site as funds become available; the existing site may be best from a town-planning viewpoint; landscaping and trees are already there. The steps necessary for planning extensions are described and illustrated by diagrams and sketch plans. Although each individual hospital has its own specific problems reorganization of operational procedures and structural alterations will in many cases meet present-day requirements for rational hospital services.

1127. Udbygningen af Bornholms Centralsygehus i Rønne. **[Extension of Bornholm's Central Hospital in Rønne.]** *Tidsskrift for danske Sygehuse*, København, 1978, Feb., vol. 54, no. 2, pp. 27-28.

In 1974 it was decided to extend the Central Hospital on the island of Bornholm in six stages, the hospital remaining a fully functioning unit at the end of each stage. The first phase, a surgical ward department with 100 beds plus maternity and children's wards, was started in May 1977 and is due for completion in 1980. The four-storey building will be 94.5 m long and 25 m wide, giving a gross floor area of 8,209 m^2. The building is designed on the double corridor principle, with the ancillary rooms in the middle, and corridors along both sides opening onto the patients' bedrooms, which face either east or west. The basement houses staff changing rooms, various engineers' rooms, the fuses etc. The ground floor comprises entrance hall, cafeteria, dining halls, lecture theatre and a 26-bed children's ward. The first floor houses a 60-bed department of three 20-bed wards, and the second (upper) storey has a 40-bed department of two 20-bed wards plus the maternity ward. Estimated costs comprise d.kr. 75 million (£7½ million) for the ward block and d.kr. 14 million (£1.4 million) for technical equipment. The article is illustrated with a map of the site and a ground plan of the first (60-bed) floor of the new building (architects, W. Gredsted, Sygehuskonsulenter and a team of four advisory firms).

1128. ANAGRIUS, L. Värnhems sjukhus. **[The construction of an extension to Värnhem Hospital, Mälmö, Sweden.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 137, 139.

A six-storey, 510-bed addition to Värnhem long-stay hospital has been constructed in central Mälmö. The building is 27 m. high and 170 m. long, and constructed of concrete faced with brick. There are thick double windows with Venetian blinds in the interspace, and a 10 mm. self-levelling anhydride mass has been laid under all floors.

Non load-bearing walls are made of gypsum, and the block-colour-code paints are applied to hessian on the walling. Rubbish sacks from all except the very oldest buildings are conveyed automatically to a compressor unit which flattens them and loads them into a container. All dirty linen is conveyed automatically to a laundry van loading point. A large number of motorized lifting devices (150) for assisting heavy patients in and out of bed has been provided: they are easily mounted on rails on the walls. All space lighting is by fluorescent tubes (Colorette). The first 100 patients were transferred from the oldest building on April 4, 1978, and the full complement of 510 will be achieved by 1980, bringing the hospital's capacity up to 1,200 beds. The oldest building will make way for a 400-space multi-storey car park. The new building cost s.kr. 120 million, including purchase of site and a major portion of this sum was for the kitchens.

1129. KELFVE, S. Värnhems sjukhus i Mälmö. **[The architect's view of Värnhem Hospital, Mälmö, Sweden.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 141, 143, 145, 147, 149.

Värnhem long-stay hospital has been on the same 90,000 m^2 site since the turn of the century, and consists of several buildings of various ages. Construction of the 510-bed extension, opened in April 1978, was started in 1975, the building being sited on two roads carrying very heavy city traffic. The basement houses medical reception, therapeutic departments, dispensary etc., and the five stories above ground each comprise two 51-bed wards divided into one-, two- and four-patient rooms. The total number of beds available after April 4, 1978 is 1,140. Sound-absorbent concrete walls and sound-insulating windows have been provided, and the building is faced in yellow brick. There are expansion gaps at 34 metre intervals in the 170 m. long building. Floors are suspended from concrete vertical pillars at 7.2 m. intervals; all concrete decking is covered in a 10 mm. layer of Nivoroc self-levelling anhydride flooring mass under the floors. The article is illustrated with an external photograph, the ground plan of the entire hospital and the plan of a ward floor.

DESIGN OF SPECIAL DEPARTMENTS

See Abstract No. 1247

DESIGN OF SPECIAL HOSPITALS OR UNITS

See Abstract Nos. 1208, 1223

ENGINEERING SERVICES

ELECTRICAL INSTALLATIONS AND EQUIPMENT

1130. PALM, S. Elanläggningen inom Värnhems sjukhus—byggnad 8, 23 och 24. **[Electrical installations in buildings 8, 23 and 24 of Värnhem Hospital, Mälmö.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 162, 165, 167, 169.

Preliminary planning for the electrical installations commenced in 1969 and final

planning began in 1972. Plans for buildings 23 and 24 were completed in June 1974: construction commenced in December. The central kitchens, block eight, were planned in 1976 and built in 1977. The hospital is supplied from Mälmö city 10 kV industrial ring main, via a distributor in the engineering block (building 10). Reserve generator capacity is sited at the local power station. Power is distributed underground on site at 10 kV to a transformer in the basement of building 23, which supplies power at 380 V three-phase and lighting current at 220 V a.c. from two 600 kVA transformers. Building 23 contains five vertical power distribution shafts, serving power distribution panels on each floor. Horizontally distributed cables are in ducts in the hollow ceilings. Main lighting is supplied from fittings containing four 40 W Colorette S fluorescent tubes, colour temperature 5400° K. Background lighting is provided by fittings containing four 40 W Miljo tubes, colour temperature 2650° K. There are large numbers of patient bed-lifts (150), electrically operated and mounted on wall tracks. All main doors open automatically, controlled by radar or photocells. All equipment and metallic portions of the building are screened and earthed. The hospital has some 800 rapid-operation telephone points connected to a fully automatic exchange. There is an internal light and sound call system, centrally distributed radio and television, centrally driven clocks, and an automatic smoke-detector fire alarm system, all with a central control and surveillance panel. Building 23 has seven cable lifts and two hydraulic lifts; passenger lifts are press-button operated, the bed-lifts can only be operated by key. There is one hydraulic goods lift (four ton) in building 24. The article is illustrated with a photograph of the fuse panel at the foot of a vertical power shaft, and a diagram of the main and background lighting systems.

TRANSPORT IN GENERAL

See Abstract No. 1200

HEATING

1131. EVANS, D. J. **Corrosion problems in hospital steam condensate lines and equipment.** *Hospital Engineering*, London, 1978, March, vol. 32, no. 2, pp. 8-15, 18-25.

The boilers and main steam and condensate pipe runs at Fulbourn and Ida Darwin Hospital, Cambridge, are described briefly. Corrosion problems found in the system are presented and illustrated. The various methods of corrosion prevention are described and their economic aspects examined. The main cause of condensate pipe line corrosion in hospitals appears to be the presence of CO_2 in either dissolved or gaseous form. While Fulbourn and Ida Darwin Hospitals are going to install a full de-alkalization unit which will theoretically solve the problem, there could still be problems with the system as some small amount of carbon dioxide and oxygen will still be present. The use of a full demineralizing unit, de-gassing tower, base exchange and de-aeration at Addenbrooke's Hospital, Cambridge, should, however, solve the problem completely (with suitable internal treatment). At Little Plumstead Hospital, the return to the use of filming amines, if the experience of the past is to be relied on, should stop the condensate corrosion in that hospital.

VENTILATION AND AIR-CONDITIONING

1132. JOHANSSON, W. and LINDELL, B. VVS-tekniska anläggningar vid ny långvårdsbyggnad och sugstation på Värnhems sjukhus, Mälmö. **[Heating, ventilation, water supply and control installations in the new long-stay building and pumping station, Värnhem Hospital, Mälmö, Sweden.]** *Sjukhuset*, Göteborg, 1978, vol. 55, no. 3, pp. 153, 155, 157, 159.

Planning of the long-term care building and vacuum pumping station at Värnhem Hospital commenced in 1969, when monthly meetings were established between the client (the City), the consultant engineers and the contractors. Full-scale models were built of certain ward units, and contracts were awarded separately for plumbing, air conditioning, control systems, stainless steel work and refrigeration. Heat is supplied at a maximum of 120°C by Malmö city power station at a maximum pressure of 170 MPa (16 atmospheres) and is distributed internally after pressure reduction at 90°C. Hot water is available at 40° for patients' washing facilities, 55° for baths and staff washing facilities, and 90°C for disinfection purposes. Rainwater from gutters is led into the ground to prevent the ground water table from sinking. Oxygen, conditioned air, compressed air and vacuum facilities are distributed by ducts throughout. A 1.4 MW refrigeration system serves the air conditioning system and the cooling cabinets in the dispensary. Air conditioning is based on four large heat exchangers, and cleans, heats or cools the air distributed internally. It is designed for a maximum external temperature range of −14° to +26°C, distributing air internally at 22° in winter and 24° in summertime. Vacuum pumping stations collect rubbish and dirty linen bags from new and existing buildings, the central kitchens and from a collecting point for the older buildings, covering 1,300 beds in all. The estimated quantities of rubbish are 70 m^3/day uncompressed, and 4½ tons of laundry a day. The laundry bag silo empties into a container automatically when it is full: there are also facilities for manual loading. Rubbish is compressed to a quarter of its volume and expressed into 26 m^3 containers. Containers are replaced semi-automatically and removed to the corporation rubbish dump. The article is illustrated with a photograph of the heat exchanger fans and the stop-valves in the vacuum transport system.

INSULATION AGAINST SOUND AND TEMPERATURE

See Abstract No. 1197

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See Abstract Nos. 1133

EQUIPMENT, FITTINGS, FURNITURE

EQUIPMENT GENERALLY

See Abstract No. 1241

MEDICAL EQUIPMENT

1133. SELMAN, A. C. **Systems for the maintenance of medical equipment.** *British Journal of Clinical Equipment*, London, 1978, Jan., vol. 3, no. 1, pp. 17, 19, 21, 23.

This paper demonstrates the need for organized maintenance of medical equipment and indicates the essential components for its successful implementation. The aspects covered are: identification of equipment; establishment of the maintenance work load; equipment history records; establishment of maintenance costs; safety; and technical documentation.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract Nos. 1142, 1149

CONDITIONS OF SERVICE

See Abstract Nos. 1143, 1145, 1234

STAFF MANAGEMENT

See Abstract Nos. 1136, 1144, 1203

STAFF TRAINING

See Abstract Nos. 1137-1139, 1145, 1148, 1184, 1209

STAFF WELFARE

1134. FELDMAN, D. C. **Organizational socialization of hospital employees: a comparative view of occupational groups.** *Medical Care*, Philadelphia, 1977, Oct., vol. 15, no. 10, pp. 799-813.

As the delivery of good medical care depends to a large extent on the attitudes of health service workers, schemes to help these workers to adjust to hospital life are very important. This study examines the way employees are attracted to, recruited by, and developed and trained within hospitals. Using interview and questionnaire data collected from 180 hospital employees, including nurses, radiology technicians and clerks, the study identifies three stages of socialization and describes the activities engaged in by employees at each stage. The four outcomes of socialization procedures: (i) general satisfaction; (ii) mutual influence; (iii) job involvement; and (iv) work motivation are described and the degree to which they are experienced by each occupational group is examined. The results showed that socialization procedures had most influence on general satisfaction and that they were needed even by the more highly skilled occupational groups.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

1135. LAZZARA, A. Il direttore sanitario dell'ospedale integrato col territorio. **[The health administrator of the local district hospital.]** *Ospedale*, Torino, 1977, Dec., vol. 30, no. 12, pp. 299-302.

Within the context of the reform of the Italian health service the hospital is to be more open to the outside world than in the past and will eventually be fully integrated into the regional health service, and play its part in health education and preventive medicine. At the same time it must not overshadow or impinge on the activity of the medical staff in the local Health Unit. Since the medical director of the hospital and the medical director of the local Health Unit are both members of the management committee of the Health Unit, the author suggests that it is at this level that integration can best be worked out, through co-operation and mutual understanding of the problems involved.

MEDICAL STAFF

See also Abstract Nos. 1146, 1209

1136. BIRT, C. A. **Duty hours and workload of juniors surveyed.** *On-Call*, London, 1978, Jan. 5, vol. 12, no. 1, pp. 8-9.

A questionnaire sent to every house officer, senior house officer and registrar working in the North Western Region was completed by 736 doctors. The results are presented in five tables and discussed. There were wide variations in hours worked between districts. In some districts shorter hours were due to better staffing, but in others they resulted from better planning. In general staff on medical units worked fewer hours than those on surgical units, though the situation was more complex when the three grades were considered separately. Two conclusions were drawn from work load statistics: distribution of junior doctors through the region was reasonably even; and while some districts deployed their staff so that the work load could be carried without the need for excessively long hours others did not. It is concluded that: (i) junior doctors were on duty rather more than twice as long as what would be regarded as a standard working week, and were actually working for 75 per cent of the time; (ii) districts can reduce hours of duty, without prejudice to the service, by means of more efficient deployment of the available manpower; and (iii) it is possible to monitor such efficiency of deployment of junior doctors by districts, and also to monitor the level of provision of junior doctors' services.

1137. HOLLENBERG, C. H. and LANGLEY, G. R. **The Canadian general internist: education and future role.** *Canadian Medical Association Journal*, Ottawa, 1978, Feb. 18, vol. 118, no. 4, pp. 397-400.

Available manpower data indicate that for the foreseeable future there will be a continuing requirement in Canada for specialists in general internal medicine. While these specialists will be located predominantly in community hospitals, they will also be needed in university medical centres. The major roles of the general internist will be: (i) to provide a consultative service to primary care physicians and to other specialists;

(ii) to provide continuing care to patients with complex serious illness; and (iii) to participate in intensive care, particularly in community hospitals. Training programmes must therefore provide: (i) adequate experience in consultative medicine in both university and community hospitals; (ii) an opportunity to follow up patients with chronic serious illness over long periods; and (iii) experience in a variety of intensive care settings including surgical intensive care units. In some university departments the organization and supervision of training programmes in this discipline have been carried out by divisions of internal medicine that have equal status with other specialty divisions within the department. This seems to have been a salutory development.

1138. BONDY, P. K. **British postgraduate medical training and inpatient medical care in the United Kingdom.** *Medical Care*, Philadelphia, 1977, Oct., vol. 15, no. 10, pp. 814-821.

British postgraduate hospital training practices are described. Because of the method of appointment to trainee posts, there is a tendency towards fragmentation of experience in the early period of training. However, the system of a consultant with his 'team' means that a junior doctor has the general bedside care of his patients, which gives him a greater chance to follow through patient cases than does the American system. Working with a good 'team' can also promote closer contacts between a trainee and his colleagues and help him in obtaining a future appointment. Over 70 per cent of British trained doctors ultimately find a post in the senior ranks of the National Health Service, but most foreign-born doctors leave Britain on completion of their training. The author believes that the extention of the hospital 'team' system to include the general practitioner would combine the best features of the British and American systems of training and patient care.

1139. GUYOT, J.-C. Les centres hospitaliers généraux d'Aquitaine: des écoles d'application de la médecine. **[The hospital centres of Aquitaine as teaching units for medicine.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Feb., vol. 33, no. 389, pp. 33-39.

Because of the widespread concern at the lack of practical training available to medical students, a scheme has been devised whereby students at Bordeaux University II will have the opportunity to spend their last undergraduate year in on-the-job training in a general or rural hospital in Aquitaine. During the first half of the year they will be treated as students, and in the second half they will receive an intern's salary. Under the present system newly qualified doctors emerge from university with a great deal of specialized or technical knowledge but no experience of the more common diseases. The new scheme will ensure that they acquire practical experience, not in the lecture theatre, but at the bedside. They may also spend two afternoons a week with a general practitioner during this last year. The scheme will involve non-university consultants in teaching and strengthen the links between the different types of hospital. The author hopes that it will also help to break down the heirarchical barriers between specialists and general practitioners.

1140. GEYMAN, J. P. **Is there a difference between nursing practice and medical practice?** *Journal of Family Practice*, New York, 1977, Dec., vol. 5, no. 6, pp. 935-936.

Moves towards a greater responsibility for primary care by nurses have given rise in

the United States to the nurse practitioner, capable of independent practice in a joint relationship with the physician. The National Joint Practice Commission has recently adopted guidelines for this new profession and there are already 200 courses for the training of nurse practitioners. This expanded nursing role has met with some resistance from physicians, and the 'medical' nature of this type of nursing has raised problems with regard to legal responsibility for patient care, educational requirements and reimbursement policies.

NURSING STAFF

See also Abstract Nos. 1140, 1199, 1202-1203, 1234, 1242, 1262

1141. ROYAL COLLEGE OF NURSING. **A background to nursing in the EEC: report of a seminar entitled 'Towards a unified profession within the European Economic Community' held 24-28 January 1977, at the King's Fund College, London.** London, Royal College of Nursing, 1977, 83pp.

The aim of the seminar was 'to promote increased awareness amongst participants of the nursing situation in each country within the context of the health delivery system, in particular the system of professional nursing education, the role of the practitioner and legislative provisions'. Papers presented included: health care systems in the EEC; educational conditions for nurses in the EEC; the Nurse's Act (1974) in Belgium; the nurse as an employee; collaboration and co-operation between the professions in the EEC; the implications of the implementation of the EEC Directives; the role and functions of the committee of senior officials on public health; and the advisory committees on medical and nurse training. Four appendices are included listing participants, speakers, the programme and extracts from Directives.

1142. MCKIBBIN, R. C. **Public policy for health manpower: nursing student loans.** *Journal of Health Politics, Policy and Law*, Durham, 1977, vol. 2, no. 3, pp. 349-361.

The United States Nursing Student Loan programme sought to stimulate the demand for admission to nursing schools, to make nursing education more accessible to persons of limited financial means, and to improve the geographical distribution of nurses. Analysis of data obtained from a sample of 74 nursing schools leads to the conclusion that while the programme has had some important effects, it has not augmented the supply of nurses nor has it changed their geographic distribution.

1143. KEMPF, R. Wird der Pflegedienst seinen Anforderungen aus der Sicht der Patienten und der Berufsgruppen im Krankenhaus gerecht? **[Does the nursing service meet the requirements of patients and professional staff?]** *Krankenhaus Umschau*, Kulmbach, 1978, Jan., vol. 47, no. 1, pp. 29-30.

In one hospital in Western Germany the cost of the nursing service per patient day has increased from DM16.50 in 1973 to DM32.50 in 1976. It is therefore important that the best possible use is made of nurses' working hours. The standard figure for lost time (sickness, leave, training courses etc.) is given as 15 per cent though in practice this is often greatly exceeded. It may be necessary to reduce costs by doing away with shift work as distinct from split duties. More part-time nurses could be used: these however should take their turn for Sunday and holiday duties. Certain

privileges which nurses enjoyed when a 52-hour week was worked (e.g. extra leave to make up for overtime) should not still apply with the present 40-hour week. Rigid adherence to fixed working hours is not always possible. As long as the nursing service has in the future adequate understanding of the economics of hospital management, and can reconcile what is desirable with what is financially possible, it will be able to meet the demands made on it.

1144. MANEZ, J. **The untraditional nurse manager: agent of change and changing agent.** *Hospitals*, Chicago, 1978, Jan. 1, vol. 52, no. 1, pp 62-65.

The health care delivery system is in transition and institutions devoted to health care are continually adjusting to change. These changes generate new organizational structures and work challenges. Nurses at all levels of management in hospitals are acutely affected by this transition. It is imperative, therefore, that nurse managers reassess and upgrade their knowledge and performance to meet the changing expectations and accountabilities for providing health care in their particular institutions. The key to effective nursing management is total commitment to effecting desirable outcomes in the areas of patient care, staff and fiscal management, and maintaining a balance between these three outcomes. To achieve this goal the nurse manager must act as a manager, an agent of change, a facilitator, a co-ordinator and a creator of a favourable milieu for the implementers of care.

1145. VERWEY, J. A. Opleidingen tot verpleegkundige en personeelsvoorziening. **[Nursing training and staffing with particular reference to in-service training.]** *Ziekenhuis*, Utrecht, 1978, Feb. 15, vol. 8, no. 4, pp. 96-100.

The high turnover of both qualified and unqualified nursing staff points to problems in the organization. The paper analyses the following problems in relation to in-service training: the increasing complexity of the medical, technical and administrative fields; the consequent co-ordination of functions in the wards; the specialization which requires more tutors; the time for lectures spent away from the wards (approximately 20 per cent); and a disproportionate ratio of untrained to qualified staff (approximately 51 per cent). Wards at present are suffering from instabilities affecting the quality of both patient care and nurse training, such as shift work, rotation of students, interruption of ward work by lectures, admissions and discharges of patients. A high turnover also increases training costs. The present method of in-service training is unsatisfactory with low yield and a loss of potentially good nurses in the process. The situation has deteriorated during the last few decades. The author suggests an entire re-organization of in-service training with different functions for students in co-operation with the domestic services, a higher proportion of permanent trained staff and closer co-operation between medical and nursing staff. The paper includes a diagram, two photographs and a list of references.

1146. VAD, B. Delområder i sykeomsorgen i sykehusets virksomhet. **[Medical care/Nursing.]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 387-391.

Although it is very rare for conflicts to occur in the intensive, acute care of the patient, difficulties do arise with regard to the organization and planning of the day-to-day work of the wards. One problem is that doctors are highly qualified medically, but all too often succumb to the temptation to act as if this qualified them equally

highly in e.g. administration. Another problem is that while doctors are highly academically qualified (Master's degree status), most nurses—except those who have extended special qualifications—have a much lower level of training. The nurse's (the woman's) main interest is in her patient; the doctor's (the man's) is in his career—and doctors know far too little about the nurse's function and abilities. It is very difficult for a woman to make her voice heard in a professional world dominated by men. Thus before the system can be improved, there has to be a radical change of attitude and behaviour patterns from top to bottom. The democratic Co-operative Consultative Committees were introduced into the hospital sector in Denmark in 1974—30 years after the labour market and industry in general had adopted the concept. It is vital for politicians and administrators to ensure that the highly expensive health service should function as rationally as possible while at the same time protecting both patients and health service staff from the frustration and the stress that follows in its wake.

1147. WESTMAN, M. Sjukvårdens delområden (Nursing) i Sjukhusets verksamhet. Vad är sjukvård (Nursing)? **[Nursing in the hospital service. What is nursing?]** *Sykehuset*, Oslo, 1977, vol. 40, no. 7, pp. 391-395.

The Finnish hospital system is organized into a multiplicity of medical subspecialties, the patient's medical problem deciding the treatment given. One of the main problems confronting Finnish nursing is lack of knowledge about what is happening on a given ward. This is due to lack of documentation. Nurses report orally to the doctor and sister, but it is not uncommon for all a patient's documents to be discarded immediately on discharge. Statistics are kept of numbers of cases treated and operations performed, but no record is kept of the *qualitative* results of treatment. The high degree of sub-specialization in surgery means that a surgeon visiting the wards is frequently only interested in and knowledgeable about a tiny minority of 'his' patients, whilst the staff needs advice on them *all*. The whole process of continual patient analysis, assessment of therapeutic priorities, choice of treatment, treatment, and ancillary measures, represents a series of decision-making situations demanding teamwork and the overall view: doctors' over-specialization militates against this. Contrary to modern concepts of decision-making and team responsibility, nurses all too often merely act as maids carrying out doctor's orders. The ward sister is responsible for a process producing nursing care, training, co-operation and communication. She is only on duty 40-hours a week, so she must also delegate work and responsibility. The answer to the problem is for the medical and nursing team to prepare a written care (nursing) plan for each patient, by which responsibility can be apportioned, progress can be measured, and experience passed on.

1148. KUGELE, L. Weiterbildung in der psychiatrischen Krankenpflege. **[Further training in psychiatric nursing.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1978, Jan., vol. 1, no. 1, pp. 21-24.

This paper sets out a syllabus for post-basic training in psychiatric nursing, both theoretical and practical, covering four half-years with a total of 520 hours of instruction. The course is run by the Central Institute for Mental Health at Mannheim. There is a written examination at the end of the first year and during the second year students prepare a thesis.

1149. PLANT, J. **Making Salmon work.** *British Medical Journal*, London, 1978, March 25, vol. 1, pp. 800-802.

This paper first outlines some problems allegedly arising from the senior nursing staff structure recommended in the report of the Salmon Committee. It then goes on to describe how this structure was implemented in the North Tees District at the same time as the commissioning of a new 1,000-bed district general hospital. Details are given of the roles of the senior nursing officers (midwifery, psychiatry, medicine and surgery) and the nursing officers, each of whom is responsible for 80 to 150 beds according to specialty. The first experiment with the nursing officer as a 'consultant in nursing practice', without the responsibilities of wards and nurses, was in stoma care. This service has been so successful that experiments are being made with other nurses carrying similar responsibilities.

OTHER PROFESSIONAL AND TECHNICAL STAFF

1150. PERRY, H. B. **Physician assistants: an overview of an emerging health profession.** *Medical Care*, Philadelphia, 1977, Dec., vol. 15, no. 12, pp. 982-990.

From late 1974 to early 1975 a study was made of the background, job placements and job responsibilities of 939 physician assistants in the United States, representing 73 per cent of the total number. Three-quarters were working in primary care fields, half in private practice and half in institutions. Over half were in communities of fewer than 50,000 people. The most common job responsibility was the diagnosis and treatment of common out-patient problems. Most respondents felt they had a considerable amount of responsibility for patient care and that their role was accepted by supervising physicians and nurses. The average income was $14,285. Job opportunities appeared to be plentiful, but career opportunities were considered to be very limited. This fact could become a problem for this valuable source of medical manpower.

1151. TOMPKINS, R. K. and others. **The effectiveness and cost of acute respiratory illness medical care provided by physicians and algorithm-assisted physicians' assistants.** *Medical Care*, Philadelphia, 1977, Dec., vol. 15, no. 12, pp. 991-1003.

The treatment of patients with acute respiratory illness was analyzed at two different clinics. Patients received care from either physicians or supervised physicians' assistants, the latter using clerical algorithms to help them with diagnosis and treatment. Ten to 14 days after discharge from the clinic, the method of treatment, patient satisfaction and state of the illness were reviewed. Diagnostic tests such as chest X-rays and throat cultures accounted for about one third of the total cost of care. There was no significant difference in the prescribing of drugs by the two groups of providers, and about 70 per cent of drug costs were accounted for by non-prescription drugs. Total care costs were higher for patients treated by physicians, owing to a slightly greater use of certain X-rays, but, as the illness outcome was similar for all patients, the study showed that physicians' assistants can provide effective care at a lower cost.

ANCILLARY STAFF

1152. WILLIAMS, A. and others. **Ancillary staff in the hospital service: an investigation.** *Hospital and Health Services Review*, London, 1978, March, vol. 74, no. 3, pp. 83-86.

With the support of the Department of Health and Social Security, the City University Business School investigated the high labour turnover in three major groups of ancillary staff (catering staff, domestic staff and porters) in a teaching hospital and a large general hospital in the same health district in London. The study involved: (i) informal and wide ranging discussions with administrators, departmental heads, supervisors, union representatives and nursing and personnel staff; (ii) review of the literature; (iii) analyses from personnel records and payrolls of ancillary staff characteristics, turnover rates and absence from work; (iv) survey of ancillary staff attitudes; and (v) discussions with other hospitals. The investigation confirmed that, though rates fluctuated in particular departments, the turnover was high overall. The most fundamental needs are for systematic induction and training schemes and an improvement in working conditions. Prerequisites for these include favourable management and supervisory attitudes, a supportive and progressive personnel department, and appropriate training facilities. Most ancillary staff are recruited by word of mouth; a satisfied staff will therefore be the most effective means of ensuring an improvement in recruitment in the future.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1113, 1114, 1124, 1210, 1253

1153. SOLER, E. G. La eficacia de la gestion en el hospital. **[The effectiveness of management in the hospital.]** *Policlinica*, Barcelona, 1978, Jan., no. 43, pp. 24-26, 28-30.

The author rejects the current notion of the hospital as a business enterprise. The purpose of the hospital is to restore the patient to health and it is difficult to monitor standards, forecast demand, or run the hospital in a genuinely business-like manner. The objective of a management model should be to strike a balance between the interests of the patients and those of the employees and of society, without arousing conflict. Employees should be well paid and have security of employment and their work should be organized in such a way as to respect their social life as far as possible. This model can be monitored by assessment of user satisfaction and staff satisfaction, and by the correct and rational use of limited resources.

1154. WANGEN, A. Trekk fra den senere tids utvikling innen norsk Sykehusadministrasjon. **[Features of recent developments in Norwegian hospital administration.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 1, pp. 2-16.

The Norwegian hospital administration's main philosophy throughout the first half of this century was to run the system as cheaply as possible. The first county hospital director (Admin.) was appointed at the end of the 1950s, and computers were first used in billing and statistical routines in 1968. Since 1970 all hospitals have been bound

by law to be run by an administrative director, operating with a management committee along narrowly defined lines. Hospitals are owned by the county they serve; the county and municipal hospitals and health centres now comprise over 90 per cent of the Norwegian hospital system. The State runs two large hospitals; and the 'private' hospitals, owned and run by charitable organizations, come under the administration of the relevant county. Although no university courses are offered in hospital administration, the National College of Public Authority and Social Affairs has a three-year course for administrative staff. The administrative and organizational functions of a hospital are co-ordinated by a six-man central committee, representing co-operative consultative committees for the various wards and departments, ad hoc councils set up to advise on various questions, and the permanent administrative staff The main aim of organizational development is to evolve the structure and chain of command which will serve the best interests of the patients in the hospital concerned. Since 1975 the counties have financed an institute for hospital research, in Trondhjem. The government has also approved a long-term scheme whereby a large proportion of the hospitals' diagnostic tasks will be transferred from the bed wards to the out-patients' departments.

1155. PAGÁ, S. S. El ABC del mantenimiento en los hospitales. Iª Parte. **[The ABC of hospital maintenance. Part I.]** *Policlinica*, Barcelona, 1978, Jan., no. 43, pp. 10-14, 16-19.

This is a basic guide to maintenance, and its importance from the points of view of economy, patient well-being, and safety. There is a description of the different types of maintenance: primary, secondary, emergency, incidental, corrective, and, in particular, preventive maintenance, which will prolong the life of the equipment, provide continuity of operation, and ensure safety in use. Practical advice is proffered on how to organize a maintenance department, how to carry out annual inspections, and how computers may be used for maintenance operations. In the light of the growing complexity of hospital equipment there is a need for specific training for hospital engineers. Six diagrams accompany the article.

GOVERNING BODIES, COMMITTEES

See Abstract No. 1116

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 1117, 1151, 1211, 1227-1229

1156. ORTH, G. Wirtschaftlichkeitskriterien im Krankenhausbereich. **[Criteria for economic viability in the hospital sphere.]** *Krankenhaus Umschau*, Kulmbach, 1978, Jan., vol. 47, no. 1, pp. 15-22.

This paper is based on provisional guidelines for testing the efficiency and economic management of hospitals which is called for by recent West German hospital legislation. Central purchasing plays an important role in efficient management as do adequate cost accounting procedures. The subject is dealt with under the following heads: food

supplies; medical supplies; water, energy and fuel; energy consumption costs; running costs; heating installations; air-conditioning and ventilating plant; technical services, including laundries; administration; costs of controlling administration services; and taxes, duty and insurance. Factors considered to be particularly important are: centralization of cleaning; food distribution and messenger services; shortening and simplifying lines of communication; simplifying forms; rationalizing visits to patients; and eliminating unnecessary repetition of examinations and tests on patients.

1157. FERSTER, G. and BUTTS, M. **Estimation of notional savings in revenue expenditure by specialty at district level.** *Hospital and Health Services Review*, London, 1978, March, vol. 74, no. 3, pp. 87-90.

This paper presents estimates of notional cost and bed savings by specialty which could be redeployed between 17 districts of a region. A linked data system has been developed using available information collected at each of 186 hospitals in the region. The central sources include the SH3 forms and hospital cost returns. The results are presented in three tables: (i) average length of stay in 1974 by specialty and district; (ii) potential release of beds by specialty and district; and (iii) estimated savings in revenue expenditure by specialty and district. The calculation indicates that in certain districts (in metropolitan areas) the objective to achieve self-sufficiency among medical, surgical and maternity specialties may be a retrograde step in that obvious opportunities to rationalize are missed. Further, the reliance on 'national norms' as a major guide for planning will lead to similar effects. Careful scrutiny of assumptions used in this paper reveals that a higher work load is inevitable. Scope exists in many hospitals to use intensive facilities outside the current weekly schedule. Such a policy may initially involve more capital and revenue expenditure, but this could be offset from the subsequent rationalizations. By reacting to the effects of such institutional planning, further economies could be identified and capitalized on by flexible district/area managers.

1158. **Improving productivity.** *Topics in Health Care Financing*, Germantown, 1977, vol. 4, no. 2, pp. 1-105.

The nine papers in this issue are: (i) an overview of hospital productivity; (ii) problems in measuring institutional productivity; (iii) the hospital resource unit—a standard measurement for hospital productivity; (iv) high profitability does not always mean high productivity; (v) the computer and hospital productivity; (vi) developing a good service productivity index—a conceptual framework; (vii) health care cost elements affecting legislative and planning considerations; (viii) the effects of patient mix and service mix on hospital costs and productivity; and (ix) productivity in nursing.

1159. ALLSTED, T. Helsekostnaden for kostnadens skyld? [**Are health costs to blame for high national expenditure?**] *Norsk Sykehustidende*, Oslo, 1978, Feb., vol. 51, no. 2, pp. 25, 28-30.

A hospital can be regarded as a producer, since it produces services and—like any other production unit—it is justified in assessing whether outgoings bear a reasonable relationship to the services offered to the public. The average cost of the service provided by a hospital depends on the extent to which its capacity is utilized. It is possible to draw graphs of average cost per patient bed-day for a hypothetical hospital with

different numbers of beds occupied (illustrated). There will be a number of beds occupied giving a minimum cost per patient, costs rising with fewer *or* more beds occupied. In the same way, a cost analysis can be carried out to find the most economic number of beds for a hospital. Despite the fact that hospitals differ from ordinary commerce in being non-profit making and non-competitive, there is nothing to prevent them from carrying out cost-effectiveness analyses in the same way as trade and industry. If the proportion of the national product spent on the hospitals (2.3 per cent in 1972 and 3.2 per cent in 1975) goes on rising at the same rate, it will reach 100 per cent in 2035 A.D. The author feels that it is time the hospital system published commercially defensible motives for its individual areas of expense, such as maintenance (of old buildings) vis-a-vis new construction; or the employment of part-time extra help against the establishment of new posts.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 1157, 1206, 1254, 1256, 1261

1160. FERNOW, L. C., MCCOLL, I. and MACKIE, C. **Firm, patient, and process variables associated with length of stay in four diseases.** *British Medical Journal*, London, 1978, March 4, vol. 1, pp. 556-559.

Factors associated with length of stay in three London teaching hospitals during 1972 and 1975 were examined in patients treated for myocardial infarction, cerebrovascular disease, inguinal hernia without obstruction, and gall stones. Statistical analyses were carried out with multiple regressions on long lengths of stay. Increased length of stay was associated with infection in all four groups and with the seriousness of operative procedures in all but patients with cerebrovascular disease. Although age was a significant variable in patients with hernias and gall stones, it had relatively little practical effect on length of stay. Other significant variables in at least one disease were obesity, number of abnormalities in blood chemistry, administration of parenteral fluids or oxygen, or use of monitoring devices, and whether chest radiography was carried out, blood electrolytes and urea were measured, or anticoagulants were used. Patients with cerebrovascular disease who were not discharged to their own homes stayed on average more than 2½ times longer than other patients. Between a third and a half of the variance was explained by these variables and the variation among firms. The method described can be used in other hospital settings, and the study shows that much new information could be available routinely without mounting expensive field trials.

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 1163, 1222, 1233

1161. PRICE, D. G. **Getting the best EDP contract.** *Hospital Financial Management*, Chicago, 1977, Nov., vol. 31, no. 11, pp. 37, 40-42.

Hospital administrators often lack expertise in dealing with vendors when contracting for computer services. This results in dissatisfaction with the service received and, sometimes, in litigation. A feasibility study to assess need and application should be carried out before a contract is drafted. Contract terms should be as specific as possible

without being too rigid and should cover: (i) developments prior to delivery; (ii) adjustments and testing after delivery; (iii) remedies in case of disputes; and (iv) arrangements for staff training. Only when the system has operated to the hospital's satisfaction should the contract require the first payment. By planning a contract strategy in advance, the hospital is able to take the initiative in developing a contract beneficial to both parties.

MEDICAL RECORDS

1162. MICHIES, J. J. M. Inrichting van een centraal directie-archief in een algemeen ziekenhuis. **[Setting up a central administrative record system in a general hospital.]** *Ziekenhuis*, Utrecht, 1978, Feb. 1, vol. 8, no. 3, pp. 64-68.

For storing the mass of hospital correspondence and documents (not papers of a secret medical or private nature) the author suggests a central record system with coded documents, providing easily available access for the hospital administration. A decimal classification coding system is suggested whereby main groups of similar subjects are indicated by a principal decimal number. Sub-divisions of these groups are indicated by other decimal numbers added on to the first number and so on, becoming eventually a complex figure presenting the various aspects of the document. If more than 10 sub-divisions are desired, two figures can be added to the main code instead of one. For storing documents several systems are available, such as the Samson system, which uses hanging cover files with strips for codes and description of the contents. The latter are kept in removable inner files which can be lent out on replacement by a ticket giving issuer, date of issue and borrower. To minimize mistakes it is recommended that a permanent staff be employed for coding and storing with the ultimate responsibility resting on the administrative secretaries.

1163. BUTLER, E. A. **An automated hospital information system.** *Nursing Times*, London, 1978, Feb. 9, vol. 74, no. 6, pp. 245-247.

An automated medical information processing system (MIS) has been installed at El Camino Hospital, Mountview, California. The network is composed of Video Matrix Terminals (VMTs) and Multiprinters. Every ward has at least one VMT and one printer and certain staff have access to information appropriate to their work. Over 5,000 displays are available, covering pre- and post-operative procedures and a medical information index. Individual patient care plans include instructions from doctors and nurses' notes. Other printouts include: (i) lists of drugs and when they are due; (ii) radiology results; (iii) diet lists and fluid charts; and (iv) patient status reports. The system also helps with financial management including advising on cost control and preparing bills and purchase orders. MIS has: (i) improved communications between departments; (ii) improved the quality of nursing care; and (iii) reduced errors in drug administration.

PUBLIC RELATIONS

1164. TAYLOR, P. J. **Hospital opening becomes big event.** *Hospitals*, Chicago, 1977, Dec. 1, vol. 51, no. 23, pp. 63-64, 66, 68, 70.

The Hospital of St. Raphael, New Haven, Conn., used the opening of its new six-

storey block containing 286 new and replacement beds and new and expanded special facilities to mount a comprehensive public relations programme. This included: saturating the media with news coverage about the building; unusual public service (unpaid) advertising; open days with free health screening tests; separate 'preview' events and tours; and a dedication ceremony that drew attention to the hospital as a whole, rather than just to the new building. In all, more than 700 volunteers served on the 16 committees which organized the events.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See also Abstract No. 1205

1165. MARSHALL, E. A. **How to cut down theft.** *Hospital Administration in Canada*, Don Mills, Ont., 1978, Jan., vol. 20, no. 1, pp. 38-39, 42.

Any security system in a hospital must have the full co-operation of the staff in adhering strictly to security regulations. It is important for staff not to leave purses and other valuables lying about and the issue of photo identity discs can overcome the danger of issuing a large number of keys. While the hospital has no legal obligation to guard patients' possessions, several measures can be taken to reduce the risk of theft. Patients should be advised not to bring valuables into the hospital, but in emergencies this is not always possible. Each ward and admitting and emergency department should have: (i) a strong envelope to store small items, with a receipt system and valuables register; (ii) access to a locked cupboard for bulky possessions; and (iii) a list of patients wearing items such as rings, dentures and contact lenses. When a patient dies, the safety of all belongings on the ward should be ensured immediately. If a claim is made by a patient or relative a full report should be made without delay to the appropriate administrator.

1166. PALMER, H. Pasienters rettigheter. **[Patients' rights.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 2, pp. 83-90 (English summary, p. 90).

There is at present no clear concept of patients' rights in Norway and there is no specific legislation on the subject. The author sets out the twelve paragraphs of the Patients' Bill of Rights issued in 1973 by the American Hospital Association and suggests that these might be used as a basis for a similar production in Norway.

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 1158-1159, 1243-1244, 1246

1167. LEMERY, B. Le budget par centres d'activité: une gestion plus rationnelle? **[A budget by centre of activity for more rational management.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Feb., vol. 33, no. 389, pp. 55-62.

A critical review of the various measures introduced in French public hospitals since 1970 in an attempt to curb expenditure, is followed by a more detailed analysis of the

scheme for separate budgets per unit of activity, which was first developed at the *Assistance Publique* in Paris, but abandoned in 1977, and which has now been put forward again in the Ministry's draft reform project. The budget is assessed on the basis of the previous year's activity and adjustments are made every quarter, the degree of dependence of each patient in the unit being taken into account. The advantage of a scheme of this nature is that it requires a re-examination of the objectives and practices in the unit, but the author feels that it is unlikely to achieve economies. Like so many other schemes it fails to define the nature of the product—hospital care.

1168. Cox, K. R. **Who owns the problem of health care costs?** *Medical Journal of Australia*, Glebe, 1977, Nov. 26, vol. ii, no. 22, pp. 727-730.

Some problems of rising health care costs are examined with special reference to Australia. In particular, the author discusses the conflict between management's overriding interest in cost containment and the medical profession's emphasis on quality of care with, at present, little regard to cost. There are two likely outcomes to this conflict: (i) mandatory peer review (which has not generally, in itself, been cost-effective in the United States); and (ii) the bringing together of all interested parties to deal with all the problems involved. The former is the more likely for a number of reasons, but the author presents a case for the latter. He sees two major tasks—to evaluate health care and to care about health values. The question of the title paper is answered—we all do, whether we like it or not. The issue is whether we can create satisfactory procedures so that all the concerned parties may participate in the decisions on how to handle these problems, or whether separate decisions will be made by those parties with power to make them.

1169. Bayles, M. D. **National Health Insurance and non-covered services.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1977, vol. 2, no. 3, pp. 335-348.

Policies are justified by what reasonable, informed, and self-interested persons with limited benevolence would accept. Three basic justifiable purposes of national health insurance are: (i) to distribute health care costs over time; (ii) to protect against rare but expensive illness; and (iii) to provide everyone with basic health care. Both cost-sharing and maximum limits to coverage to contain costs fail to satisfy all three purposes. The principle proposed for non-covered services is: services for specific conditions under medically determined circumstances should not be covered by national health insurance if a substantial number of reasonable persons (more than 50 per cent) would not choose them for themselves were they in similar situations; taking into consideration the proportional increase in the cost of insurance. Compulsory payment for coverage of such services appears to require that people have more concern for the health of others than for their own. The application of the principle to cosmetic, extraordinary, and diagnostic or preventive services is illustrated. It is suggested that the principle should be implemented by regional panels of representative citizens determining what services should be covered in their regions, given a proportional share of health insurance revenues. Difficulties of implementation are considered.

1170. Feder, J. M. **Medicare implementation and the policy process.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1977, vol. 2, no. 2, pp. 173-189.

It is argued that Medicare policy toward hospitals has been profoundly influenced by the perspectives and goals its administrators acquired in a social insurance agency.

As a result efficient claims payment was given priority over the impact of payment on the costs and quality of care. Initially reinforced by concern that exercising control would antagonize hospitals and threaten Medicare's survival, this perspective became entrenched as administrators grew accustomed to operating procedures and working relationships with hospitals. Despite internal scepticism about the appropriateness of some established arrangements, the Social Security Administration sought to avoid the administrative disruption and political conflict associated with change. Even where external pressure arose the response was cautious and limited. As a result Medicare policy has continued to support inadequate and unsafe hospitals and to exacerbate cost inflation. The tendency for administrators to become committed to established procedures and to avoid political conflict is not unique to Medicare. New directions in policy require changes both in administrators' attitudes (through changes in organization, leadership etc.) and in the pressures they face in the political environment.

1171. LOEBS, S. F. **Medicaid—a survey of indicators and issues.** *Hospital and Health Services Administration*, Chicago, 1977, vol. 22, no. 4, pp. 63-90.

Medicaid has recently emerged as one of the most complex and costly public schemes for medical care in the United States. Details are given of: (i) eligibility for the scheme; (ii) the number and scope of services provided; (iii) how the scheme is administered; (iv) the extent to which Medicaid has made services accessible to the lower paid; and (v) the pattern of the increase in and distribution of Medicaid costs. Many of these factors vary considerably from one state to another. Several alternatives for cost containment within Medicaid and related issues are described. These include: (i) eligibility changes; (ii) reduction in services; (iii) the imposition of cost sharing; (iv) control of fraud and abuse; (v) changes in reimbursement to providers of services; (vi) the possibility of states contracting with Health Maintenance Organizations to cover persons eligible for Medicaid; and (vii) the increase of utilization reviews. There are many issues to be resolved before the future direction of Medicaid is known.

1172. SCHONBRUN, M. **The future of Blue Cross.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1977, vol. 2, no. 3, pp. 319-334.

The reasons for the rise and decline of Blue Cross, a unique American institution, are analysed. Its inability to respond to the crisis in today's health system is described as nothing more than the failure of the ailing American health system to cure itself. The early rise of Blue Cross is attributed to its success in meeting pressing social needs: helping patients to afford the costs of hospital care and helping hospitals to meet their expenses. Its later decline is traced to several factors: the striking increase in the costs of health care; the rise of the state insurance commission; the anticipated introduction of national health insurance; and the increased competition from commercial insurance carriers, specialty health care data and management firms, and state governments. It is questioned whether society should invest further in the future of Blue Cross, which may have lost the confidence of the general public, government and the health provider community. Four possible futures for Blue Cross are set forth: the outright collapse of several plans; a 'Lockheed-type' bail-out; a 'Naderist' organization strongly allied to consumers; and a quasi-governmental agency.

1173. FOWLER, D. R., SULLIVAN, F. W. and SAMUELS, W. O. **A state catastrophic health insurance plan and the peer review process.** *Hospital and Community Psychiatry*, Washington, 1977, Dec., vol. 28, no. 12, pp. 894-897.

Rhode Island set up a health insurance plan in 1975 to cover health costs in excess of those covered by private health insurance. In 1976, the state threatened to reduce the benefits for psychiatric services under the scheme, but the Rhode Island branch of the American Psychiatric Association prevented this by offering to review cases wanting cover for psychiatric services. The review committee determines the type of treatment required and has reduced costs in several cases, at the same time acting as a check on the quality of care received.

HOSPITAL ACCOUNTING

See also Abstract No. 1212

1174. HILDEBRAND, R. Kaufmännisches Krankenhaus-Rechnungswesen. **[The aims, contents and setting up of a hospital commercial accounting system; an example from Berlin hospitals.]** *Krankenhaus*, Stuttgart, 1977, Nov., vol. 69, no. 11, pp. 419-422.

A recent West German Hospital Act required hospitals to adopt, at the latest by 1 January 1978, a commercial system of book-keeping and accounting as an aid to efficient and economic management. This paper describes the system developed for Berlin hospitals which includes automated data processing.

SUPPLIES AND STORES

PURCHASING

See Abstract No. 1161

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

1175 De mensen en ideeën achter het NOR-project: totale reorganisatie van voedselverzorging in instellingen binnen vijftien jaar rond: opleidingsscholen hebben zeer enthousiast ingehaakt. **[The people and ideas behind the NOR (Standardization and Organization of Catering Services in Institutions) project: the complete reorganization of institutional catering services in fifteen years: the training schools are very enthusiastic about the project.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, March 6, vol. 45, no. 543, pp. 121, 123, 125.

The aim of the NOR-project, started in 1976 as a State subsidized two-year experiment, was to achieve one or more basic models for catering and dietetics in health

institutions. The NOR-team consisted of an economist, two dietitians and a hotel catering officer. A manual on the project is planned within three years from the start and it is hoped that within the following 10 years the proposed changes will have been generally adopted. Nineteen hospitals co-operated in the project including two pioneer hospitals working directly with the NOR-team. An assisting co-ordinating group of six members appointed by domestic and catering services was also set up. The hospitals were split into three groups, each aiming to carry out the plans in 10 phases, covering monthly meetings, design of standard diets and prescription forms, lists of types of patient/consumers in order to decide available menus, agreements on set recipes to calculate nutritional values, etc. The pioneer hospitals have now nearly completed the plans and will shortly issue manuals on the organization of a central distribution system and a restaurant. Further aims will be extension of the dietary section, standardization of nomenclature to include extra-mural services and involvement of more health institutions. The project will minimize dietary errors, help patients to choose right but varied menus and still leave institutions free to adapt catering systems to their individual requirements.

1176. Patiënt als consument: uit onderzoekingen zal altijd blijken dat wensen en behoeften zeer uiteenlopend zijn: er zal een redelijke middenweg moeten worden gevonden. **[The patient as consumer: investigation will show as usual that wishes and needs differ greatly: a reasonable middle course must be found.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, March 6, vol. 45, no. 543, pp. 127, 129.

To find out about catering arrangements for patients (or consumers) in health institutions inquiries should be made as to what is being offered, how much, where and when. Replies can vary widely giving details of one or more hot meals a day, different routines for patients and staff, and variety of menu, room or restaurant service. To discover patients' wishes questions should include preferences for evening snacks, times of hot meals, balance of meat and vegetables, tea or coffee with visitors, deep plates for blind people, etc. To please every individual is practically impossible; some wishes can be met whilst others can not. The greater the variety, the more complicated is the catering.

1177. SQUIRES, N.-M. **Cost cuts spark a food revolution.** *Hospital Administration in Canada*, Don Mills, 1978, Feb., vol. 20, no. 2, pp. 14-18.

This paper gives brief details of the changes in food service which have been introduced in a range of Canadian hospitals as a result of the pressure to reduce costs.

DIETETICS IN THE HOSPITAL

1178. WILLIAMSON, S. and others. **Organization of bank of raw and pasteurized human milk for neonatal intensive care.** *British Medical Journal*, London, 1978, Feb. 18, vol. i, pp. 393-396.

In 1976 a human milk bank was established at King's College Hospital to serve the neonatal intensive care unit. The bank is staffed by two part-time nurses who interview prospective donors, organize collections, prepare samples for bacteriological screening,

and process the milk. Milk is also donated by mothers in post-natal wards. On average, 25 litres a month is collected from about 15 donors, of which some is free enough of bacteria to be fed raw (unheated) to sick and low-birth-weight infants. Most of the remainder may be used after holder pasteurization. The bank provides an adequate supply of milk of consistent quality at relatively low cost and greatly helps the dietary care of low-birth-weight infants.

KITCHENS

1179. Pot, H. Grootkeuken van de toekomst II: Gladde vloeren in grootkeukens worden als bijzonder hinderlijk ervaren. **[Kitchens of the future II: experience shows that polished floors are a particular problem in the kitchen.]** *Voeding- en Huishoudgids*, Amsterdam, 1978, Feb. 6, vol. 45, no. 54, pp. 83, 85.

The paper is mainly concerned with the 'gastronorm' system of standard sizes in hospital kitchens, based on unit size 530 by 325 m.m. (1/1 g.n.). Equipment covered by the system ranges from cold storage spaces, working tables and drawers to cooking equipment including ovens, hobs, pans, etc. and container trolleys, all designed in fractions or multiples of the unit size. The system is space-saving and also labour saving when easy-to-clean, mobile, interchangeable containers are used for deliveries, collections and transport. Only a small paragraph is devoted to polished floors, stating that they are tiring to the feet and that non-slip kitchen tiles have now come on to the market. New colour schemes for hospital kitchens, bolder than the traditional whites and greys, will be available in the future. The paper includes a series of diagrams of 'gastronorm' sizes and capacities.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

See Abstract No. 1179

HYGIENE IN THE HOSPITAL

See also Abstract No. 1125

1180. Vocht en water blijven kritiek: chroomnikkelstaal en functionele vormgeving dragen bij tot hygiëne. **[Damp and water remain critical items in the hospital: chrome nickel steel and functional design contribute to hygiene.]** *Instelling-management*, Amsterdam, 1978, vol. 10, no. 2, pp. 33, 35, 38.

Installations which use water and areas which attract moisture provide breeding grounds for pathogenic bacteria. Risks can be kept to a minimum by high standards of hygiene; designs which avoid sharp corners and ridges; smooth surfaces; well fitting joints; smooth, non-corrosive walls of supply and drainage pipes; and use of suitable materials. Over the last 20 years very satisfactory results were found with the use of chrome nickel steel, an alloy now increasingly used in installations, apparatus, furniture, walls, etc. Its hard, smooth, non-corrosive, non-cracking and hard-wearing surface

does not need any organic or inorganic protective layer. It tolerates all detergents and disinfectants, even under high pressure and high temperatures. It is not affected by damp, dry heat or low temperatures. It does not rust and does not accumulate static electricity and therefore attracts no dust particles and bacteria. After contact with warm water the surface dries faster than that of other materials. When knocked or beaten it does not splinter, merely bends. Further research in connection with materials for baths is at present being carried out in Bad Oeynhausen, Germany.

HOSPITAL INFECTIONS

1181. LESKY, E. Sykehusinfeksjoner—historiske aspekter. **[Hospital infections—historical aspects.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 2, pp. 91-107.

The author presents a history of the concepts of the cause of hospital infections and methods of controlling them. The miasma theory of the 18th century and aseptic surgery as practised by Lister in the 19th century are two of the landmarks in this development. Other important names whose contributions are evaluated include Semmelweiss, Pasteur, Pringle, Koch and James Young Simpson. There are 21 references to the literature.

SOURCES OF INFECTION

1182. SCHOPPE, W. D., KINDLER, U. and WALDORF, E. HBs-Antigen und Anti-HBs bei Krankenhauspersonal. **[HBs-antigen and anti-HBs in hospital staff.]** *Deutsche Medizinische Wochenschrift*, Stuttgart, 1977, Nov. 25, vol. 102, no. 47, pp. 1712-1715.

A study of 826 members of the staff of nine hospitals and clinics in Düsseldorf showed a frequency rate for hepatitis B surface (HBs) antigens of 1.5 per cent. This did not differ significantly from the rate for a control group of blood donors. On the other hand the frequency rate among hospital staff for HBs antibodies was 19.1 per cent, much higher than the rate for blood donors. This rate was higher in certain groups of staff (e.g. operating theatre, laboratory, out-patient, anaesthesia) than in others (e.g. X-ray, paediatrics). Staff positive for HBs antibodies can be employed in circumstance where there is exposure to infection.

1183. BUFFA, F., AZZI, A. and GORZONI, S. Indagine sui portatori di salmonelle in un ospedale psichiatrico. **[Investigation into salmonella carriers in a psychiatric hospital.]** *Ospedale*, Torino, 1977, Nov., vol. 30, no. 11, pp. 273-281.

A detailed account is given of the methods used and results obtained in a survey carried out with the object of detecting healthy carriers of Salmonella in a psychiatric hospital. All the patients, all the kitchen staff, and some of the general and nursing staff were investigated. Salmonella was isolated from 10 female patients and two male patients. The strains identified were *S. typhi* (three), *S. paratyphi B.* (one), *S. typhimurium* (one), *S. Newport* (five), *S. Manhatten* (one), *S. Ohio*, and *S. infantis* (two). The sensitivity to antibiotics of the strains isolated was tested. The results are summarised in nine tables, and there are also three diagrams. One patient was a carrier of *S. paratyphi B* and *S. typhi* simultaneously. The five cases of *S. Newport* were considered to have originated from one carrier.

PREVENTION AND CONTROL

See also Abstract Nos. 1185, 1221

1184. DUNKELBERG, H. and others. Hygienisch-bakteriologische Vergleichsuntersuchungen an 50 Krankenhäusern. VI. Zur Effektivität krankenhaushygienischer Beratung am Beispiel von 6 Krankenhäusern. **[Hygienic and bacteriological studies in 50 hospitals. VI. The efficacy of a hospital-hygienic instruction regarding 6 hospitals.]** *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene*, 1. Abt. Orig. B, Stuttgart, 1977, vol. 165, nos. 5/6, pp. 381-392.

This investigation into the effect of staff training in hygiene and bacteriology, and of advice on hygiene planning in six hospitals formed part of a wider study on hygiene involving 50 hospitals. The situation in the six hospitals as regards hygiene before the measures were taken is compared with that which obtained after medical, nursing and administrative staff had taken a two days' course in hygiene and bacteriology and after advice on hygiene planning had been given. The results show that hand disinfection and drying and surface disinfection improved, the use of disposable towels increased and the efficiency of sterilizing equipment improved. The results of microbiological tests were inconclusive. For example, after the measures had been taken *Staphylococcus aureus* was isolated from throat swabs more often than before but this was probably due to seasonal changes.

HYGIENE IN THE OPERATING THEATRE

1185. ZOURBAS, J., MERVEILLE, F. and TOUBON, P. Contaminations aéroportées et contrôles aérobiologiques en salles d'opérations chirurgicales. **[Contamination by air and aerobiological control in operating rooms.]** *Techniques Hospitalières*, Le Kremlin-Bicêtre, 1978, Feb., vol. 33, no. 389, pp. 40-44.

The aerobiological contamination of a conventional operating theatre was monitored over a two-year period with the help of an M 1 type 500 aerobiocollector. The results, summarised in three tables, show that peaks of contamination occur when the patient and operating team enter the theatre, when they leave, when anyone enters the theatre during an operation, when there is a lot of movement or conversation, and, finally, when the theatre is being cleaned after use, particularly when dry sweeping is done. Contamination can be reduced by the use of masks and of appropriate clothing, preferably made of non-woven material, by regular and effective cleaning of all surfaces, and by having an interval of 40 minutes between operations. Air conditioning with laminar or horizontal flux also helps to reduce the level of contamination.

STERILIZATION

1186. MORANDINI, M. and SALVADOR, P. Sterilizzazione ospedaliera. **[Hospital sterilization.]** *Tecnica Ospedaliera*, Milano, 1977, Dec., vol. 7, no. 12, pp. 48-53.

The mainly economic advantages of a centralized sterilization system are discussed and the organization of a system of this kind briefly outlined. There are two diagrams which illustrate the movement within the hospital of material for sterilization, a

photograph of a peripheral sterilizing unit for a group of theatres, and two tables designed to help in assessing which units require what services from the sterilization unit and how different materials should be treated.

1187. MALONEY, T. J. **Sterilization of sealed glass containers.** *Australian Journal of Hospital Pharmacy*, Prahran, 1977, vol. 7, no. 4, pp. 134-135.

Groups of glass containers of various sizes were tested for sterility after washing, rinsing, draining, sealing and autoclaving. This procedure was sufficient for containers having capacities of up to and including 50 ml, but larger containers needed to have five ml of apyrogenic water added for sterilization by autoclave to be effective. Before the containers are used the excess water must be aseptically decanted.

AIR HYGIENE

1188. SMITH, W. D. A. **Atmospheric pollution and contamination with anaesthetics.** *British Journal of Clinical Equipment*, London, 1978, March, vol. 3, no. 2, pp. 49-53.

This paper reviews the problems arising from atmospheric pollution with anaesthetics and some of the steps being taken to overcome them. The aspects covered are: source of pollutants; room ventilation; overflow from breathing systems; collection of overflow from breathing systems; scavenging systems (passive, assisted passive, and active); interface between the collecting and scavenging systems; and moisture.

DISPOSAL OF WASTE

1189. Bortskaffelse af sygehusaffald: rapport fra arbejdsgruppen vedrørende økonomiske konsekvenser i forbindelse med bortskaffelse af sygehusaffald. **[Report by a working party on the economics of hospital refuse disposal.]** *Tidsskrift for danske Sygehuse*, København, 1978, Jan., vol. 54, no. 1, pp. 1-18.

The Department of the Environment (*Miljøstyrelsen*) and the Board of Health (*Sundhedsstyrelsen*) have issued guidelines for the disposal of hospital refuse. It can either be incinerated *in toto* on site—hygienically the ideal solution; or sorted into: (i) normal rubbish, which goes on to the rubbish dump; (ii) hospital refuse, which is burnt at a suitable facility; and (iii) refuse of animal or human origin, requiring special treatment. A committee representing hospital administration and engineers has compared seven methods of disposing of hospital refuse: (i) all refuse removed uncompressed for outside incineration: (ii) refuse removed compressed for outside incineration: (iii) pathological and infectious refuse burnt at the hospital: (iv) special hospital refuse only incinerated at the hospital: (v) pathological, infectious and special hospital refuse burnt at the hospital: (vi) special hospital refuse and ordinary rubbish burnt at the hospital; and (vii) pathological and infectious refuse, special hospital refuse and ordinary rubbish incinerated at the hospital, for hospitals with 100-, 200-, 400- and 800-beds. The results are tabulated and set out graphically, the graphs showing establishment and running costs of the various methods. Far and away the most economical method of disposing of hospital refuse, as regards finance, use of resources, and environmental consideration, is to incinerate it uncompressed in large communal facilities. The article is illustrated with 17 photographs.

SAFETY MEASURES

ACCIDENTS, GENERALLY

See also Abstract No. 1221

1190. HONORÉ, O. Nogle arbejdsmiljøproblemer på hospitalsområdet. **[Some working environment problems in the hospital field.]** *Tidsskrift for danske Sygehuse*, Glostrup, 1978, March, vol. 54, no. 3, pp. 53-56.

The Danish Factory Inspectorate has published a review of all accidents reported in hospitals in 1976. Of the 933 accidents reported, 574 occurred in connection with patient treatment, 146 occurred in kitchens and 92 during cleaning. 226 (40 per cent) of the patient-associated accidents occurred during lifting and moving activities, and the majority affected the insured's back. Eleven per cent (65 accidents) were falls on shiny, wet or greasy floors. Fifty accidents (9 per cent) were infectious in origin and 31 injuries (5 per cent) were caused by violent patients. There were 17 accidents in laboratories, of which seven were caused by broken glass and three by chemicals. Twenty-eight of the accidents in kitchens were caused by kitchen utensils, 23 being associated with scalds or burns. Falls are the commonest cause of injury to cleaners, the next commonest being cuts by sharp instruments while emptying bins etc. Back strain is the commonest source of injury in laundries. There is evidence that many incidents involving toxic chemicals are never reported. Between 6,000 and 7,000 hospital staff are exposed to radiation risks every day, X-ray staff receiving an estimated 100 to 200 millirem every year. The Factory Inspectorate requires an annual medical inspection for all persons exposed to more than 1½ rem per year. Danish requirements will shortly be co-ordinated with Common Market regulations. The Inspectorate has published regulations regarding the use, distribution and dispersal of anaesthetic gases, and regulations to be observed in planning hospital buildings (lighting, working areas, changing rooms, canteens, sanitary facilities, and exits).

RADIATION HAZARDS

See Abstract No. 1224

THE PATIENT

ADMISSION AND RECEPTION

See also Nos. 1255, 1256

1191. VISSER, A. Ph. Kennis van patienten over het ziekenhuis. Een onderzoek naar enkele daarmee samenhangende faktoren. **[Patient's knowledge of hospitals: a survey of determinants and effects.]** *Tijdschrift voor Sociale Geneeskunde*, Amstelveen, 1978, Jan. 25, vol. 56, no. 2, pp. 50-57.

An investigation was carried out in 1975 by the Department of Social Psychology of

the Free University, Amsterdam, into the extent of the knowledge of 252 non-confused, adult in-patients of hospital regulations (visiting times, smoking, use of telephone), facilities (library, shops etc.) and staff names. Overall there were 15 per cent wrong answers and four per cent 'don't knows'. The highest percentage correct answers (99 per cent) concerned visiting hours and the lowest (59 per cent) the ward sister's name. The higher educated and younger patients had a better knowledge of staff (doctors' and nurses') names, and the higher the social class they belonged to, and—independently—the longer they had been in hospital, the better they knew the rules and regulations. Patients who had read the hospital's introductory information booklet were satisfied with the booklet and displayed most knowledge of the rules. There was no statistical relationship between information given by staff about hospital routine and patients' satisfaction with the hospital. Patients knowing most staff names also displayed the greatest knowledge of medical matters and proved to be in wards showing the greatest degree of class (social) stratification. Publishing an information booklet and giving it to patients on admission is by no means the same as guaranteeing 100 per cent information on the hospital, its routines and facilities.

1192. GRIMES, J. A. **The probability of admission to a mental illness hospital or unit.** *Health Trends*, London, 1978, Feb., vol. 10, no. 1, pp. 13-14.

The overall admission rate to psychiatric hospitals rose by only one per cent between 1970 and 1975 and the first admission rate fell by 10 per cent, indicating a significant decrease in the total number of people receiving in-patient care for mental illness. On the basis of the 1975 rates, it can be estimated that approximately 8.6 per cent of males and 12.4 per cent of females can be expected to be admitted to a psychiatric hospital at some time during their lives. They form two groups: (i) those admitted for the first time fairly late in life with senile dementia or psychosis; and (ii) those entering at a younger age with depression or psychoneuroses. However, there are some considerable differences between the probabilities of admission at different ages for different diagnoses in the younger group. The future validity of these figures will depend upon future trends in first admissions.

WELFARE OF THE PATIENT

See also Abstract Nos. 1116, 1166, 1176, 1191, 1215, 1218, 1219, 1257

1193. VOLICER, B. J. and BURNS, M. W. **Pre-existing correlates of hospital stress.** *Nursing Research*, New York, 1977, Nov./Dec., vol. 26, no. 6, pp. 408-415.

This study was carried out to identify factors leading to stress in hospital patients, as part of a wider study of the effect of hospital stress on the outcome of illness. A hospital stress rating scale was used. Variables such as demographic characteristics, previous hospital experience, amount of life stress before entering hospital and the seriousness of the illness were all considered. Medical and surgical patients were interviewed after a few days in hospital and a total of 468 interviews were included in the final data analysis. The stress scores revealed that surgical patients experienced higher levels of stress than did medical patients. Among medical patients, hospital stress decreased as age and the period since the last admission increased. Among surgical patients, those with serious illness reported more stress than others, and women more than men. The results revealed several pre-existing factors related to hospital stress which could easily be identified at the time of admission.

1194. Klachtenprocedure Stichting Doetinchemse Ziekenhuizen. **[The new complaints procedure at the Doetinchemse Hospital Foundation.]** *Ziekenhuis*, Utrecht, 1978, March 1, vol. 8, no. 5, pp. 118-119.

This paper defines 'complaint' as a motivated expression of displeasure by a general practitioner, a patient or an interested third party about medical matters, organization, treatment or nursing care in the hospital. To deal with these complaints a procedure was introduced which included the setting up of a complaints commission, an advisory body under an independent chairman who does not belong to the medical or administrative hospital staff. The hospital administration however will have three members on the commission for two year periods. Its task is to investigate complaints which have been dealt with by the hospital authorities but have left the complainant dissatisfied with the results. The methods of procedure are described in sequence from the initial complaint to the hospital authorities, including notification to the medical board and administration, the six weeks time limit for reply, the right of appeal by the complainant with reference to the commission, the appointment of more members to the commission on request, and the commission's advisory role, storing of files and discretion. The final verdict however will remain with the hospital authorities. Evaluation of the system will take place after a year.

1195. SWIENTEK, C. Gespräch und Umgang mit Selbstmordpatienten im Krankenhaus. **[Conversation and communication with suicide patients in the hospital.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1978, Jan., vol. 1, no. 1, pp. 17-21.

Many nurses find contact with suicidal patients to be extremely difficult and full of problems. Such patients need someone to talk to who does not moralize, who shows readiness to help, who tries to understand, and who is able to encourage the patient to face his problems. The time problem can be solved by short periods of conversation, even if only of five minutes duration, between patient and nurse. Without any special competence in spiritual or mental care the nurse can help a sick person with sympathy and encouragement.

1196. GLÖCKNER, A. Der suizidale Patient. **[The suicidal patient.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1978, Jan., vol. 1, no. 1, pp. 6-16.

This paper divides into three parts: (i) statistics, types, motivation, causes, symptoms, and special features of suicide; (ii) the pre-suicidal syndrome; and (iii) help and guidance by nursing staff. The last section deals with the nurses' first contact with the suicidal patient; behaviour towards the patient who is a suicide risk; and ways of preventing suicide (including diverting the patient, the therapeutic community, integration into society, etc.). When a suicide has taken place on a hospital ward, observation of other patients, who may be adversely affected by the incident, must be intensified. Doctors, nurses and other staff must exchange experiences and observations so that they can work as a team in caring for patients likely to be affected.

1197. MITTER, C. J. Schallschutz beim Krankenhaus. **[Protection against noise in the hospital.]** *Krankenhaus*, Stuttgart, 1977, Nov., vol. 69, no. 11, pp. 426-430.

Since in the modern hospital practically all departments and activities are housed in a single building, proper planning is necessary to ensure that minimum noise disturbance

is caused both within the hospital and outside it. This paper discusses measures to reduce the noise nuisance under the following heads: external sources of noise; spread of noise outside the hospital; internal noise reduction; noise protection of dividing walls, ceilings and doors; protection from footfall noise; noise levels of air-conditioning and ventilation plant; and other technical installations. Meeting acoustic requirements not only satisfies standards and regulations; it makes for the well-being of patients and staff.

HOSPITAL SOCIAL WORK

See also Abstract No. 1206

1198. RÖRIG, R. Die Entwicklung des Sozialdienstes im Krankenhaus. **[The development of social work in hospitals.]** *Krankenhaus Umschau*, Kulmbach, 1978, Jan., vol. 47, no. 1, pp. 23-25.

This short history of the development of social work in hospitals shows that although social workers were employed in Berlin hospitals as early as 1894 and in Hamburg by 1917, the development of hospital social work was much slower in Germany than in England, France and the United States. At present the number of social workers in the hospitals of the Federal Republic is just over 900.

1199. ROYAL COLLEGE OF NURSING. **Counselling in nursing: the report of a working party held under the auspices of the RCN Institute of Advanced Nursing Education.** London, Royal College of Nursing, 1978, 89pp. £2.00

The Working Party was established in October 1975 with the aim of examining the concept of counselling within nursing. The report offers no definite answers although it clarifies many aspects of the work of the nurse in counselling. Aspects considered include: definition of counselling; the approach to the task; the need for staff counselling; the extent and use of existing resources; and the need for the provision of additional resources. Recommendations for establishing a counselling service are presented. Three appendices are included: (i) a study of the opinions of a selected number of nurses employed in the National Health Service; (ii) aspects of a nurse counsellor's role; and (iii) references to the literature which influenced the thinking of the Working Party. An index is also included.

TRANSPORT OF PATIENTS

See also Abstract Nos. 1236, 1237

1200. CUCCIA, A. I'trasporti di pazienti in gravi condizioni da un ospedale generale provinciale. **[Transport of patients in a serious condition from a Provincial General hospital.]** *Ospedale*, Torino, 1977, Dec., vol. 30, no. 12, pp. 307-316.

Over the past 10 years 150 dangerously ill patients have had to be transferred from the provincial general hospital at Lodi to other hospitals, generally in Milan, because of the lack of specialist services at Lodi. Over one-third of these patients were children aged less than 12 years. With the gradual expansion of facilities at Lodi, the number of patients requiring transfer has fallen steadily, but when the need does arise, Lodi

hospital now has its special ambulance, or 'life car', which contains all the equipment for emergency resuscitation. The author stresses the importance of keeping the ambulance in good repair and the need for the driver to be familiar with the route to specialist hospitals. He includes five tables in which the number of patients transferred and the types of injury, congenital defect, or illness from which they suffered are analyzed.

1201. GILLIGAN, J. E. and others. **Retrieval of the critically ill in South Australia: a co-ordinated approach.** *Medical Journal of Australia*, Glebe, 1977, Dec. 24/31, vol. 2, nos. 26/27, pp. 849-855.

The development and current organization of the system for the stabilization and evacuation of the critically ill in South Australia is described. The integration of activities of peripheral medical practitioners, major teaching hospitals and the ambulance transport authority (St. John Ambulance Council) is paramount. Communication is by 'urgent line' telephone and radio. Advanced life-support equipment is portable, may be placed in any ambulance vehicle, and is used and maintained principally by the staff of intensive care units. The design characteristics of a suitable road vehicle and fixed-wing aircraft are considered, with emphasis on dimensions for the particular needs of advanced life-support. The cost of transporting a critically ill patient is about two-thirds of an average bed day cost in a public hospital, plus the basic ambulance charge. The number of patients who need such measures is 0.2 per cent of the total number of patients carried by ambulance per year.

HOSPITAL CARE

See also Abstract Nos. 1140, 1143, 1147, 1215, 1226, 1258, 1259

1202. CLARK, M. O. and others. **Pressure sores.** *Nursing Times*, London, 1978, March 2, vol. 74, no. 9, pp. 363-366.

A survey of the incidence and severity of pressure sores in patients in the care of Greater Glasgow Health Board is reported. The survey involved 10,751 patients in care on 21 January 1976. A new classification was devised for the study: grade 1—skin discolouration; grade 2—superficial pressure sore; grade 3—destruction of skin, no cavity; grade 4—destruction of skin, a cavity. As a spot check revealed that confusion had arisen over the interpretation of grade 1 sores, only grades 2, 3 and 4 were included in the analysis. The results are presented in seven tables and discussed. They show: (i) females tend to have a slightly higher incidence than males; (ii) incidence tends to increase with age, but with the 10-19 years group showing an out-of-sequence figure; (iii) the greatest incidence by specialty was in geriatric assessment (20.6 per cent), orthopaedic (11.9), radiotherapy (10.9), and geriatric long-stay (10.7); and (iv) the most common site was the sacrum followed by ischial tuberosities, hips, heels, ankles, elbows and knees. Overall 8.8 per cent (± 0.5 per cent) of the population surveyed had a pressure sore.

1203. RIORDAN, L. **Patient care management in action: one center's experience.** *Hospitals*, Chicago, 1978, Jan. 1, vol. 52, no. 1, pp. 70-72, 76.

In 1971 a general hospital and a psychiatric facility merged to form the 387-bed

Mercy Center for Health Care Services, Aurora, Ill., resulting in a number of problems in the department of nursing. In 1977 the department was asked if it would be willing to act as a demonstration hospital for a programme on patient-care management sponsored by the American Hospital Association. The programme is based on the concept that where persons are directly involved in the product, in this case patient-care, those persons should be vested with the authority and the accountability for the quality and cost of the product. Management by objectives is central to the philosophy of the programme. This paper describes how problems were identified and objectives established. The department's objectives showing primary and secondary responsibility are reproduced in tabular form. Fiscal year objectives and action plans for each of the 14 nursing areas were then developed. Accomplishment of identified objectives and actions is already seen in some areas; lack of accomplishment is also showing in some areas. Staff enthusiasm is high, with staff nurses responding to the challenge of participating in planning.

1204. PARKES, C. M. **Home or hospital? Terminal care as seen by surviving spouses.** *Journal of the Royal College of General Practitioners*, London, 1978, Jan., vol. 28, no. 186, pp. 19-22, 25-28, 30.

Of 276 married patients under the age of 65 who died of cancer in two South London boroughs during the period 1967 to 1971, 41 were still under active treatment at the time of death. A study was made of the remaining 85 per cent who experienced some form of terminal care; in particular reports by the surviving spouses were compared for 65 patients whose care was home-centred and 100 hospital-centred patients. Although home-centred care was most often chosen for patients who were said to have had little severe pain before the end of terminal care, during that period there was a sharp increase in reports of pain, much of it severe and unrelieved. Hospital-centred patients were said to have had much less pain and more confusion during the final phase of care and were more likely to have been confined to bed than those at home. The amount of anxiety reported by spouses was not markedly different under the two patterns of care, nor did the pattern of care influence subsequent adjustment to bereavement. Qualitative differences between the two graphs are considered and it is concluded that although home-centred care can be successful, it is often associated with unnecessary suffering. Implications for the home care of the terminally ill are discussed.

1205. STROSBERG, M. A., LEVINE, C. and MAUET, A. **Technology and the governance of the health care industry: the dilemma of reform.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1977, vol. 2, no. 2, pp. 212-226.

With increasing public expenditure on health services, the accountability of the health care industry has become a major political issue in the United States. Concomitant issues concern the structures and processes through which the public as patients, customers and citizens can directly influence the delivery of health care. These issues, which are currently part of the national health policy debate, are indicative of the larger question concerning the relationship of the individual to his increasingly complex society. This paper presents three arguments: (i) the medical profession through its control of technology and monopolistic hold on legitimate claims of expertise, is the primary determinant of the way health services are structured and resources are

allocated; (ii) domination of doctor-patient relationships, medical care delivery organizations and the national health care policy process enables physicians to remain unaccountable to democratic institutions and insulated from public participation in decision-making; and (iii) lack of accountability, disproportionate professional power and the failure of government regulation raise questions about the role and impact of the medical profession as a quasi-institutional political factor in terms of return on investment, claims of expertise and self-regulation, and overreaching democratic values.

DISCHARGE OF PATIENTS

See also Abstract No. 1248

1206. KEITH, J. G. **Hospital social work audit focuses on discharge planning.** *Hospitals*, Chicago, 1977, Dec. 1, vol. 51, no. 23, pp. 73-75.

The discharge planning audit programme developed by the social work department at Richland Memorial Hospital, Columbia, SC, is a retrospective appraisal of the social services provided in discharge planning, especially when nursing homes and/or home care are involved. The audit criteria were developed to identify problems in social service delivery. Twenty patients' records were included in the first audit programme. Changes introduced as a result of the audit include: (i) the entire patient record, not only the social work progress notes, is now reviewed; (ii) a system of bi-monthly current review of 10 per cent of all active cases being handled by the social work department has been developed; and (iii) in-service education programmes for social work staff are to be conducted on a regular basis. The results of a re-audit six months later showed a vast improvement.

HOME CARE, AFTER-CARE

See also Abstract Nos. 1225, 1239, 1260

1207. BRIDGMAN, J. F., REID, J. and WILLIAMS, T. **Control of insulin dependent diabetes at home.** *Practitioner*, London, 1978, Feb., vol. 220, no. 1316, pp. 193-194.

Basildon and Orsett Hospitals in Essex each hold a weekly clinic for both old and new diabetics. In addition to the usual medical staff, a dietitian, a technician (who measures the blood sugar) and the community liaison nurse (CLN) attend each clinic. The original intention was for the CLN to provide a link between hospital and community and at first her duties were mainly administrative. However, it became increasingly clear that she was not being deployed to the best advantage and she needed greater clinical involvement. The CLN is: (i) notified by the medical staff of all new diabetics and of developments in the management of established diabetics; (ii) instructed on the policy of control for each patient; (iii) sits in with the consultants at the clinics and helps with the running and supervision of the clinics; and (iv) makes home visits. Brief details are given of the CLN's work and three years' results are outlined. The policy of community management of diabetics has appeared to work very well, mainly because of the enthusiasm of the staff.

SPECIAL DEPARTMENTS

OPERATING SUITES

1208. PETER, E. Neubau Operationsabteilung Krankenhaus Maingau Frankfurt/M. **[New operating department for the Maingau Hospital, Frankfurt on Main.]** *Krankenhaus*, Stuttgart, 1977, Nov., vol. 69, no. 11, pp. 430-434.

Construction of the new operating department for the 265-bed Maingau Hospital in Frankfurt on Main (207 of whose beds are surgical) started in September 1976 with completion planned for the end of 1977. The department has been built above the X-ray and physiotherapy departments. It has the following accommodation: two aseptic theatres; a plaster room; a septic theatre; service room; changing room; anaesthesia-nursing centre; central sterilization; and rooms for air-conditioning, heat supply and electrical services. The paper includes a photograph of the exterior, a floor plan, and diagrams of special constructional features.

ANAESTHESIA

See also Abstract No. 1188

1209. PAYNE, J. P. **Training—the way ahead.** *Middle East Health Supply and Service*, Sutton, 1978, Feb., vol. 2, no. 2, pp. 45-46.

The author outlines the history of the development of anaesthesia. Unlike the United States, the practice of anaesthesia in the United Kingdom has remained in the hands of the medical profession. Today training is largely confined to the postgraduate period and to those doctors willing to accept a full-time training post in anaesthetics. The Diploma in Anaesthetics of the Royal Colleges provides a non-specialist qualification, while the Fellowship of the Faculty of Anaesthetists in the Royal College of Surgeons of England (FFARCS) provides a further, but not an ultimate qualification for those wishing to make a career in the specialty. In the United States, university hospitals provide training programmes of up to three years duration. In the Middle East, most anaesthetists now practising hold a diploma from Copenhagen or London, but a diploma is now available at the University of Baghdad. Certain British government departments have funds for Arab doctors who wish to obtain specialized training in anaesthesia in the United Kingdom.

PHARMACY

See also Abstract No. 1187

1210. HAGELSTEN, J. O. Om lägemiddelkomiteer: komiteer der skal skabe mere bevidst indstilling til valg af lägemidler. **[Establishment of medicines committees which will make more considered recommendations in medicines selection.]** *Sygeplejersken*, København, 1978, March 22, no. 12, pp. 4-7, 20.

Following the earlier setting up of medicines committees in two Copenhagenhospitals, the Copenhagen Municipal Hospitals Directorate has now appointed a joint medicines

committee serving all its hospitals. Its primary task is to select, and continuously revise, an adequate range of drugs for Copenhagen's municipal hospitals and ensure a rational supply of drugs. The committee evaluates drugs in order to obtain maximum efficiency and safety in treatment at minimum cost. Committee members are nominated by doctors and pharmacists so that the various specialties are represented: ad hoc assistance is obtained as necessary from other experts. A joint committee with the primary health services has also been set up. In 1976 the Department of Health reported that 24 medicines committees had been formed in Denmark and that two others were being established.

1211. CALMAN, K. C. and others. **Cost of out-patient chemotherapy.** *British Medical Journal*, London, 1978, Feb. 25, vol. i, pp. 493-494.

A study was made of the cost of drugs used at each session of a clinical oncology out-patient clinic, staffed by four doctors seeing 40 to 45 patients per session. During a period of two months there were 324 patient visits with a total drug cost of £2,433, or £7.50 per visit, a not particularly high figure. The yearly cost of each patient's drugs is greater than for most other chronic diseases, but less than the cost of in-patient care or of drug treatment for acute illness.

1212. MCGHAN, W. F., ROWLAND, C. R. and BOOTMAN, J. L. **Cost-benefit and cost-effectiveness: methodologies for evaluating innovative pharmaceutical services.** *American Journal of Hospital Pharmacy*, Washington, 1978, Feb., vol. 35, no. 2, pp. 133-140.

This paper reviews cost-benefit and cost-effectiveness analysis techniques which can be of assistance in the evaluation of innovative pharmaceutical services. Process and outcome measures are considered and steps in a cost-benefit study are suggested.Samples of pharmacy studies using these techniques are appraised. Possible measures for benefits and costs are presented, together with references to the literature on evaluation of innovative pharmaceutical services. The areas of pharmaceutical service discussed are: ambulatory patient consultation; unit dose drug distribution; parenteral admixture services; patient and therapy responsibilities; patient discharge interviews; patient drug histories and profiles; and staff substitutions. Although there have been several encouraging reports on the cost-benefit of pharmaceutical services, more evaluative research is needed to develop programmes which maximize the benefit-to-cost ratio to society. A list of 56 references to the literature is included.

1213. MALONEY, T. J. **Quality control and quality assurance in hospital pharmacy.** *Australian Journal of Hospital Pharmacy*, Prahran, 1977, vol. 7, no. 4, pp. 143-146.

The pharmacy at the Royal Adelaide Hospital carries out a large amount of bulk manufacturing and has to maintain quality control as laid down in the Code of Good Manufacturing Practice. Most of the routine production and testing is performed by pharmacy assistants and technicians, supervised by experienced professional staff. Hygiene in production areas is vital. Starting materials and equipment such as labels and containers are tested before being stored and used. Test results are recorded on a card index and the pharmacy is planning to carry out evaluations of all current methods of assay and testing. The hospital has the support of the State Director of Pharmaceutical Services and the pharmaceutical industry in Adelaide in its efforts to achieve quality control.

1214. Beheer van assortiment, voorraad en verpakking: rationalisatie in de ziekenhuisapotheek. **[Assortment, stock and packaging control: rationalization in the hospital pharmacy.]** *Instelling-management*, Amsterdam, 1978, vol. 10, no. 2, pp. 9-14.

The paper is a report of a speech by Dr. J. H. Bakker, pharmacist at St. Radbout Hospital, Nijmegen. He mentions that many improvements in medicine distribution, from manufacturer to patient, have been introduced in his hospital and discusses details of a 'formularium' and EAS packaging. The formularium, introduced in 1974, is an authorized list of medicines the hospital will prescribe. To stock many similar or rarely prescribed drugs seemed uneconomic. A commission was therefore appointed to work out a rationalized stock of medicines, selecting one of a series of similar drugs and carry out a continuous evaluation. The cost of the annual turnover has since improved, though other measures (no details mentioned) had also been taken. The EAS packaging aims at preventing discrepancies between prescription and administration. It includes a medicine trolley with patients' individual compartments, cards showing prescription and administration of medicines for each individual patient, and a simple way of packaging with unit doses in PVC and aluminium press-through wrappings in standard sizes of 25 to 50 mm., including self-stick labels with data on drug particulars for use on registration cards after administration. In co-operation with other hospitals a packaging machine has been developed for standard volume sizes. Advantages of the system are identification of single doses, improved hygiene, good economics and high pharmaceutical quality. A disadvantage is the increased volume compared with bulk buying. The paper includes a graph and nine pictures.

1215. HARCUS, A. W., SMITH, R. B. and WHITTLE, B. A. **Pain: new perspectives in measurement and management.** Edinburgh & London, Churchill Livingstone, 1977, xvi, 194pp. £10.00

During the past few years some of the most important discoveries have been made in the field of analgesic pharmacology since the discovery of volatile anaesthetics over a century ago. The proceedings of a two day symposium held in May 1977 on pain and its relief by drugs are presented. The book is in two sections: the first part is devoted to psychological, physiological and pharmacological aspects of pain. Two chapters deal with the measurement of pain. The second section deals with the management of pain, paying particular attention to the applications of an important new analgesic buprenorphine, which has been recently introduced into clinical practice.

1216. BUCCERI, P. and BAKER, J. A. **Management strategy for the diffusion of innovation: unit dose drug distribution.** *American Journal of Hospital Pharmacy*, Washington, 1978, Feb., vol. 35, no. 2, pp. 168-173.

The authors have developed a four-part model that describes one possible management strategy for the diffusion of innovation into an organization, and applied it to the introduction of a unit dose drug distribution system. The effect of changes in the environment of hospital pharmacy may result in the recognition of performance groups and thus stimulate the introduction of innovation. Aspects of diffusion of innovation which are explained are: (i) the knowledge function—supplying the appropriate

information; (ii) the persuasion function—creating a positive attitude towards the implementation of innovation; and (iii) the decision function—the adoption or rejection of the innovation. Successful implementation of an innovation requires a conscious management strategy: the model described provides this.

1217. TALLETT, E. R. **Centralized intravenous admixture program for nine British hospitals.** *American Journal of Hospital Pharmacy*, Washington, 1978, Feb., vol. 35, no. 2, pp. 163-165.

Burnley Health District, one of six districts of the Lancashire Area Health Authority, has 2,842 beds of all kinds in nine hospitals, the most distant being eight miles from the central pharmacy at Burnley General Hospital. This paper describes the development of a centralized intravenous admixture service for the district. The service is accommodated away from the other activities in the pharmacy. Facilities include changing rooms, tray assembly area, gowning room and aseptic room. The accommodation is air-conditioned. Floors, walls and ceilings are made of a washable finish. A 24-hour service is provided by employing a technician and part of the services of a staff pharmacist when the pharmacy is open, with three or four pharmacists operating an on-call service when it is closed. The methods of operation are outlined. Existing transport is used for delivery during the day and a contract taxi outside working hours; urgent items at any time and initial requests at night are delivered by the pharmacist.

1218. HOOD, J. C. and MURPHY, J. E. **Patient noncompliance can lead to hospital readmissions.** *Hospitals*, Chicago, 1978, Jan. 1, vol. 52, no. 1, pp. 79-82, 84.

The discharge drug counselling service at the 247-bed Miriam Hospital, Providence, R.I., provides patients ready for discharge with written auxiliary drug information and a patient medication calendar (examples of both are reproduced) at a counselling session with a pharmacist who explains their purpose. The procedure followed is outlined. Patients are also given a questionnaire to be completed to provide a method of judging the effectiveness of the service. Replies to the questionnaire tend to indicate that patient compliance has generally improved as a result of the service, though there has been no formal verification of this.

1219. KAUFMAN, R. L., COTNOIR, G. M. and HOLM, A. L. **Medication discharge counseling program developed by pharmacists.** *Hospitals*, Chicago, 1978, Jan. 1, vol. 52, no. 1, pp. 89-92.

A survey is reported of patients from medical-surgical units who were to receive prescriptions for medications to be self-administered on a routine basis following discharge. A study group of 86 patients was counselled by a pharmacist on proper use of prescribed drugs. These patients were given information sheets on their specific drugs, a compliance calendar if deemed necessary, and a two-day properly labelled starter supply of drugs to be administered on a scheduled basis. A control group (106 patients) did not receive assistance. Five days after discharge attempts were made to contact all patients; if contact was not made within 10 days of discharge the patient's records were deleted from the study. Compliance by group, patient age and sex is shown in a table. The study group showed a much lower level of non-compliance; this

was true for all age groups except those of 71 years and over. Three patients were readmitted as a result of drug non-compliance, all of them in the control group.

1220. JAROCHA, H. **Microbiological quality control in a hospital pharmacy.** *Hospital Pharmacy*, Philadelphia, 1977, Dec., vol. 12, no. 12, pp. 575-576, 579-580, 583.

At Strong Memorial Hospital, Rochester, N.Y., the Department of Pharmacy has instituted a comprehensive sterility monitoring programme. Included are both a set of procedures to test for microbial growth in products and a systematic scheme for monitoring the equipment that is used to manufacture these products. The results of these analyses are recorded in a microbiological quality control log book as proof that testing has been performed. Specifically, the procedures are designed to monitor the quality of water, the efficiency of the laminar flow hood, the adequacy of the autoclaving process, and the sterility of all parenterals manufactured in the pharmacy. When contamination is discovered: (i) a sample of the product is sent to the microbiology laboratory for a differential testing; and (ii) the incident is brought to the attention of the person who produced the items and the importance of good aseptic technique is re-emphasised.

LABORATORIES

1221. DEPARTMENT OF HEALTH AND SOCIAL SECURITY. WORKING PARTY TO FORMULATE A CODE OF PRACTICE FOR THE PREVENTION OF INFECTION IN CLINICAL LABORATORIES. **Report.** (Chairman: Sir James Howie). London, DHSS, 1978, vi, 75pp.

This is the report of the working party established in 1975 'to produce a code of practice for the prevention of infection in clinical laboratories' including recommendations for safety in post-mortem rooms. Aspects considered by the working party include: identification and handling of specimens; training and supervision of staff: personal precautions and protective clothing; use of equipment; transport and reception of specimens; accommodation; and infectious hazards. A series of 14 appendices are included, presenting model rules for the prevention of infection; recovery and disposal of leaking specimens; the requirements regarding tuberculosis and hepatitis; and the siting of safety cabinets and room ventilation. The working party also made five recommendations in addition to formulating the Code of Practice.

1222. **Hospital laboratory computing.** *British Medical Journal*, London, 1978, Feb. 18, vol. i, pp. 387-388.

The use of computerized data processing in the laboratory has made slow progress because of: (i) the large number of details needed in the data base; (ii) the need to enter the result of every test into the 'files' of the correct patient; and (iii) the need for speedy generating and printing of reports. This means that a whole range of programmes need to run apparently simultaneously, a process until recently only found on large computers. However, the importance of efficient laboratory data processing, for example, the provision of legible reports, is being recognised and the Phoenix system has led the way in computer developments suitable for the laboratory.

DIAGNOSTIC X-RAY DEPARTMENT

1223. FUSI, A. and TRIGARI, T. Uno spazio nel reparto di radiologia e neuroradiologia per il tomografo computerizzato. **[A space in the radiology and neuroradiology department for computerized tomography.]** *Tecnica Ospedaliera*, Milano, 1977, Dec., vol. 7, no. 12, pp. 34-39.

The advantages of computerized tomography (CT) are described; these include speed and safety of operation, comfort for the patient and the operator, and speed of diagnosis. In the neuroradiology department CT will replace more dangerous diagnostic methods but in the radiology department it will complement the traditional methods. The authors provide a practical guide to the installation of a CT unit: they specify the space required; the size and weight of the unit; its heat dispersion during use; the electricity and water supplies needed; protective measures to be taken; and the requirements as to ambient temperature and relative humidity in the examination room. There are three useful illustrations and three tables.

1224. BARKER, D. **Protection and safety in the X-ray department.** *Radiography*, London, 1978, Feb., vol. 64, no. 518, pp. 45-49.

Patients should only be referred for radiography when it is certain that (i) any possible harmful side effects do not outweigh the value of the information to be gained; and (ii) this information cannot be obtained by some other means. The minimum amount of radiation consistent with a diagnostic result should be used and the recommendations in the 1972 Code of Practice regarding filtration must be adhered to. Full use must be made of collimators, cones, compression bands and lead backing sheets to reduce scattered radiation. The direction in which the X-ray beam is aimed can play an important part in dose reduction and anyone attending the patient should use lead-rubber gloves, aprons and screens. All use of radiographic equipment outside the X-ray department must be supervised by a radiologist. Careful attention should be paid to the maintenance of radiographic, protective and dark room equipment and to any developments which may provide means of reducing dosage.

REHABILITATION

See Abstract No. 1241

PHYSIOTHERAPY DEPARTMENT

1225. HOLGATE, B. **Report on a pilot scheme for a domiciliary physiotherapy service.** *Chest, Heart and Stroke Journal*, London, 1977/1978, vol. 2, no. 4, pp. 38-42.

A six-month pilot scheme of domiciliary physiotherapy for geriatric patients operated by Withington Hospital, Manchester, is reported. The main objectives of the scheme were: (i) to discover if there was a need for such a service and if so how great was the need; and (ii) to discover the best method of organization for such a service. The total number of patients referred was 120, but after an assessment visit 17.5 per cent of these

were not treated. Details are given of source of referral, diagnoses, other members of household, attendance of district nurse and treatments. A typical case-history is presented. An assessment of the service is made and some potential weaknesses are suggested. The results of the pilot scheme suggest that the benefits of a domiciliary physiotherapy service for geriatric patients would far outweigh the costs, and the care of patients not receiving treatment at the day hospital would be greatly improved.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 1249

1226. FRIEDMAN, E. **Burn care in U.S. hospitals—how much? how good?** *Hospitals*, Chicago, 1977, Dec. 1, vol. 51, no. 23, pp. 53-58.

This paper examines the status of burn care in the United States today, citing some of the services available and the views of specialists in the field. In many areas there are sufficient burns units, but in others there is a lack of facilities. In general burn care is excellent and innovative despite severe manpower shortages. The main threats to quality are shortage of training funds and sites, lack of education on the part of some staff, and staff turnover. Actions which can be taken to improve the situation, even without massive funding, include: collecting adequate statistics; ensuring that emergency department staff are familiar with emergency burn treatment procedures and transport needs; increased participation in county and regional programmes; and inclusion of burn care in hospital education and outreach programmes.

1227. PARKIN, D. M. **Chronic renal failure: the economics of treatment.** *Community Health*, Bristol, 1978, Feb., vol. 9, no. 3, pp. 134-141.

Despite the availability of effective treatment of chronic renal failure, there are still considerable international differences in the proportion of potential patients who receive treatment, and hence the degree of selection of patients that is exercised. Economic factors have certainly been one element in limiting the development of treatment programmes. This paper examines the size of the problem, costs of treatment, the value of treatment, value for money, conclusions from cost data, the balance of treatment methods, international comparisons, and the economics of limited care. From an economic point of view, renal transplantation is the most effective method of treating chronic renal failure. However, the number of transplants per year in the United Kingdom, just over 600, accounts for only one-third to one-quarter of those needing treatment. Other than transplantation, the only practical long-term solution to treatment lies in dialysis. There is little experience of limited care units in the United Kingdom, but there is no reason to suppose that they would be more cost-effective than home dialysis for long-term treatment. They may well be a useful alternative to hospitals for certain patients. A cost-benefit study suggests that there is no overall financial gain to society from treating patients with renal failure, though this does not mean we should not do so. The data suggest that the United Kingdom is probably already the most cost-effective country and yet facilities are not available for all those who need them. This is unlikely to change much unless increased resources are allotted to health care in general and renal failure in particular.

INTENSIVE CARE UNITS

See Abstract Nos. 1178, 1245

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract No. 1261

1228. GOLDSMITH, S. B. **A look at the issues in hospital-based ambulatory care.** *Trustee*, Chicago, 1977, Nov., vol. 30, no. 11, pp. 40-42.

A major commitment has been made to hospital-based ambulatory care in the United States. In recent years, patients have visited hospital clinics and casualty departments more often than the doctor's surgery because of: (i) mobility of population; (ii) encouragement by doctors to use the hospital outside surgery hours; and (iii) a patient preference for the hospital. Doctors have viewed ambulatory care as an economically advantageous way to practice in a group setting, but plans made by the hospitals with regard to services and staff have often been haphazard. Of the many problems facing hospitals considering ambulatory care, the most significant are staffing and finance. The key elements for setting up a successful scheme are: (i) a demand from the community; (ii) capital; (iii) a nucleus of committed doctors; and (iv) a strong hospital administration.

1229. MOSCOVICE, I. **A method for analyzing resource use in ambulatory care settings.** *Medical Care*, Philadelphia, 1977, Dec., vol. 15, no. 12, pp. 1024-1044.

The main object of this study was to develop a method of analyzing the use of resources in ambulatory care. Important considerations include: (i) the selection of a set of suitable medical problems; (ii) the development of computerized routines for courses of care; and (iii) the selection of means of measuring use. The Frontier Nursing Service in Leslie County in eastern Kentucky, which operates a 40-bed hospital with outpatient clinics and eight nursing outposts, was chosen as a suitable setting. Otitis media, tonsillitis and urinary tract infection were the problems selected for study. The results showed that patterns of care were influenced by the relationships between: (i) site of treatment and use of drugs; (ii) type of case and use of laboratory tests; (iii) composition of the team providing the treatment; and (iv) the frequency of follow-up. Common problems were in general treated similarly by the hospital and the district clinics, but in rural areas with fewer facilities total costs were lower.

CASUALTY AND ACCIDENT

See also Abstract No. 1201

1230. TEUFEL, W. L. and TRUNKEY, D. D. **Trauma centers: a pragmatic approach to need, cost, and staffing patterns.** *Journal of the American College of Emergency Physicians*, Lansing, 1977, Dec., vol. 6, no. 12, pp. 546-551.

The optimal staffing patterns for trauma centres laid down by the United States Health Services Administration and the Committee on Trauma of the Americal College of Surgeons are unrealistic, both in cost and need, for all but a few large teaching

hospitals. A minimum of one general surgeon, an anaesthetist and one emergency physician should be enough to maintain an efficient trauma service in a community hospital. Surgical specialists should be on-call within 30 minutes. A paid part-time director and a co-ordinator of nursing and allied staff should also be part of the team. The estimated costs of a trauma service of this type are given. A study of five per cent of motor accidents in any area can be used to forecast the number of serious injuries and, from this, the number and type of trauma services required. This method of estimation is applied to California as an example.

1231. HILKER, T. L. **Nonemergency visits to a pediatric emergency department.** *Journal of the American College of Emergency Physicians*, Lansing, 1978, Jan., vol. 7, no. 1, pp. 3-8.

During January and February 1977 the parents of 652 non-emergency patients attending the emergency department at The Children's Hospital, Akron, Ohio, were asked to complete a simple questionnaire covering six factors: arrival time; travel time; who decided the patient should go; did the patient have a physician; did the parent attempt physician contact; and where the parent would have preferred to have gone for treatment. The results indicated that 47 per cent of the non-emergency visits occurred during the time when physicians maintain office hours. Most visits were made by patients living less than 15 minutes away from the hospital. Physicians decided that the patient should go to the emergency department 18 per cent of the time. Patients with a private physician accounted for 80 per cent of the visits. Most parents did not try to contact a physician prior to the visit. Indeed 46 per cent of the parents preferred to take their children to the emergency department rather than to a physician's office. Finally, 74 per cent of the parents who attempted some contact with a member of the health care system were referred to the emergency department for care.

DAY HOSPITALS

1232. TYNDALL, R. M. **Day hospital dilemma: when patients refuse.** *Modern Geriatrics*, Bromley, 1978, Feb., vol. 8, no. 2, pp. 34-35, 37.

Of 660 patients referred to the Sherwood Day Hospital in Nottingham during the years 1972 to 1974, 17.9 per cent refused to come or discharged themselves for 'social' reasons. This group were generally older than the other patients, more often lived alone, were more often referred for reasons other than rehabilitation, and were less often suffering from illness arising from a stroke. Clearly the short attendance of self-discharged patients, who were not very disabled and who with the 'refusing' group were found to be well on follow-up, demonstrates that the group as a whole did not really require day hospital management. Inappropriate referrals need to be avoided if the optimum use is to be made of resources.

CHEST

See also Abstract No. 1151

1233. SMALES, O. R. C. **Computer system for recording and display of data from newborn infants with respiratory illnesses.** *Archives of Disease in Childhood*, London, 1978, Feb., vol. 53, no. 2, pp. 169-171.

The PDP 11/45 computer in the medical physics department at University College

Hospital, London, is connected by cables to a terminal in the neonatal unit. The terminal, which consists of two television screens and a typewriter keyboard, is sited in the centre of the unit, adjacent to the blood-gas analyser. The system has been designed to: (i) collect brief clinical details; (ii) collect values for arterial blood-gas tensions, acid-base status, and variables relating to continuous positive airway pressure and mechanical ventilation; and (iii) display the respiratory data in graphical form both on the television screens and on paper for permanent storage in the case notes. The use of the system over 25 months for the recording and display of data from 227 infants with respiratory illnesses is reviewed. Improved efficiency of data handling was demonstrated; the system also proved valuable for teaching and research.

CHILDREN

See also Abstract Nos. 1231, 1262

1234. BACKSCHAT, G. Kinderkrankenpflege heute—veränderte Organisationsformen (u.a. Schichtdienst.) **[Nursing sick children today—changed forms of organization, (including shift duty).]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1978, Jan., vol. 1, no. 1, pp. 34-36.

The following basic systems for organizing nursing in children's wards are described: split duty; continuous duty; mixed duty; and shift duty. The last is most popular from the nurses' point of view, and is likely to attract recruits, but it has disadvantages for the patients, requires more qualified staff, and does not adequately cope with peak periods. The normal three shifts of eight hours each (with changes at 6.30, 14.30 and 22.30 hours) can with advantage be modified to day shifts of six to seven and a half hours and a night shift of up to 10 hours. Another modification, the so-called 'see-saw' duty (Schaukeldienst), is very popular and is advantageous both for nurses and for the work flow. Afternoon duty is followed by morning duty so that patients are looked after by the same nurses for a longer period and, an additional advantage, change-over procedures need to take place only at mid-day. Lack of time means that medical treatment takes precedence over the general physical and mental care of the children: but the latter is of great importance for young children separated from their families. Although in some children's hospitals mothers help look after their children, the nurse still has to take the place of a parent in many cases.

1235. WADSWORTH, M. E. J. and MORRIS, S. **Assessing chances of hospital admission in pre-school children.** *Archives of Disease in Childhood*, London, 1978, Feb., vol. 53, no. 2, pp. 159-163.

It has been suggested that it is possible to identify children at risk of illness and that health visitors could do this. This study based on the 5,000 children in the National Survey of Health and Development shows that health visitor assessments were not particularly successful in identifying children at risk of hospital admissions for certain illnesses, even when more than one hospital admission or a serious illness later occurred. The maximum reduction of hospital costs by such identification would be little better than one-third and there would be an unquantifiable, but very real, stress imposed on families in which children were wrongly identified as at risk. It is suggested that further development of health visitors' work as family nurses would give a more effective form of child health care by providing greater sensitivity of surveillance, by involving parents in preventive care, and by making appropriate use of health visitors' skills.

1236. ROY, R. N. D. and KITCHEN, W. H. **NETS: a new system for neonatal transport.** *Medical Journal of Australia*, Glebe, 1977, Dec. 24/31, vol. 2, nos. 26/27, pp. 855-858.

The Neonatal Emergency Transport Service (NETS), which has been operating in Victoria since October 1976, is a co-operative venture between the Ambulance Service of Victoria and the four Melbourne hospitals with neonatal intensive care units. The service provides a team of nurses and doctors who travel to the referring hospital with sophisticated equipment to stabilize the infant and accompany the infant to hospital. The team pays particular attention to temperature control and adequacy of oxygenation and ventilation. The first nine months of operation are reported, and show significant improvement in the condition of the infants on admission to the intensive care unit. The natural consequence of this is the fall in mortality and morbidity of the sick and premature newborn infants. Prenatal transfer of the mother at high risk remains the preferred form of perinatal transport.

1237. ROY, R. N. D. **Neonatal transport.** *Medical Journal of Australia*, Glebe, 1977, Dec. 24/31, vol. 2, nos. 26/27, pp. 862-864.

This paper presents the rationale for the transport of neonates and the scope of the problem of such transport. It then discusses: neonatal transport today; which infants require transport; preparations for transport; effect on the parents; mode of transport; and influence on perinatal care.

1238. WELLS, P. G. and others. **An adolescent unit assessed: a consumer survey.** *British Journal of Psychiatry*, London, 1978, March, vol. 132, pp. 300-308.

The Macclesfield Young People's Unit is a purpose-built building in the grounds of Parkside Psychiatric Hospital. It is a modified therapeutic community with beds for 20 adolescents of both sexes between the ages of 13 and 17. Admission is based on a therapeutic contract agreed with the youngster and his family. Data on the first 150 admissions to the unit are presented. The information was collected from all referring agencies and a sample of youngsters and parents after an average period of two years since discharge. Results were similar to those from other adolescent units: 78 per cent of neurotic disorders, 53 per cent of mixed neurotic and conduct disorders and 47 per cent of conduct disorders showed improvement. There was a higher incidence of recurrence of the most significant presenting symptoms (72 per cent). Nevertheless, referers and youngsters showed a positive attitude to the treatment experience. The possible relationship of this to the contract system is discussed. A longer period of stay was found to correlate positively with improvement in conduct disorders. There is a need for further research into what aspects of a treatment milieu produce significant and lasting changes in conduct disorders.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1225, 1232

1239. RUCHLIN, H. S. **A new strategy for regulating long-term care facilities.** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1977, vol. 2, no. 2, pp. 190-211.

Seven factors are identified as being responsible for the failure of current regulatory

efforts to elicit an acceptable level of performance in long-stay facilities: inadequate financing; inadequate knowledge; bureaucratic apathy; legal constraints; political constraints; fragmentation of agency responsibility; and shortage of beds. Public utility status, market regulation and non-profit control are reviewed and rejected as alternatives to the current approach. A new strategy aimed at improving the regulatory process and environment is proposed. The process can be improved by: (i) adopting a programme rather than taking a functional approach to agency organization; (ii) linking the inspection and rate-setting processes; (iii) creating a role for consumer groups in the inspection process; and (iv) exposing the process and results of regulation to public scrutiny. The five proposals offered for improving the regulatory environment are based on: (i) eliminating barriers to entry; (ii) supporting alternatives to institutionalization; (iii) federalizing the Medicaid programme; (iv) abandoning exclusive reliance on the medical model as the guide for regulatory standards; and (v) changing the focus of regulation from structure-process to outcome.

1240. JOHANSSON, A. Är detta framtidens modell för långtidsvården? **[Is this tomorrow's model for long-stay care?]** *Vårdfacket*, Stockholm, 1977, Nov. 24, vol. 1, no. 21, pp. 8-14.

Sandbyhov long-stay department in Norrköping is divided into: a small unit with many staff nurses and few patients; a large unit containing most of the patients, with very few staff nurses and a large number of nurses; and an intermediary unit organized along traditional lines. This has made it possible to economize on some 18 or 19 nursing staff places, a vital necessity because of the shortage of nurses. The nurses available are thus at the disposal of the 25 per cent of the patients who need them most. Each of the 10 wards has an establishment of four nurses (two on duty at once) per 28 to 30 patients. On weekdays a staff nurse acts as sister on two wards together; no staff nurses are on duty in the evenings or at weekends. The Chairman of the local branch of the health service employees association is uneasy about the fact that nurses in the admissions department have the formal responsibility for the 300 patients on the home's wards when there are no staff nurses on duty. A newly admitted patient stays for a maximum of 30 days in the admissions ward for assessment before being sent to the clinical and rehabilitation department or the nursing home wards. The physiotherapists and occupational therapists have rehabilitation and training as their first priority, treating about 75 patients every morning and 50 every afternoon. Both professions have a free hand to develop independent treatment programmes for the individual patients. Many nurses feel that training long-term care and group (team) nursing ought to occupy a later and more significant part of their course of training.

1241. MILLARD, P. H. **To rehabilitate or to vegetate?** *Nursing Mirror*, Sutton, 1978, March 16, vol. 146, no. 11, pp. 14-16.

During the past 20 years many geriatric departments have shown how an active approach can enable patients, whom other units had considered irremediable, to return to independent lives in the community. Much of this work has been carried out in isolation from the so-called active hospitals which have continued on traditional lines of management. This paper is based upon the experience gained in running a geriatric unit, but the results obtained in this unit perhaps suggest that other hospital departments should question their methods of patient management. It outlines the basic

essentials of rehabilitation and emphasizes the importance of a team approach. In particular it criticizes some of the furniture and equipment now in use and makes recommendations for its improvement. It is shown that a change in staff attitudes, upgraded wards with the right furniture, increasing expertise and a co-operative approach with the local authority have enabled the author's department to admit an increasing number of patients although the number of beds per 1,000 population over 65 years of age has fallen.

1242. SALLING, A.-L. Sygeplejerskens arbejde på et geronto-psykiatrisk plejehospital: stimulation og kontakt hindrer at de äldre sindslidende går i stå. [**Nursing in Copenhagen's newest gerontopsychiatric hospital, Hedelund Hospital in Hundige: stimulation and contact help the elderly and mentally disturbed to continue functioning.**] *Sygeplejersken*, København, 1978, Feb. 22, no. 8, pp. 4-6, 18.

Gerontopsychiatry is a relatively unknown branch of nursing. Gerontopsychiatric wards may have to be locked, due to the patients' demented and senile state. Hedelund Home, opened in 1974, is a single-storey building comprising 12 24-patient wards, an office wing, kitchen, ergotherapy and physiotherapy departments, laboratory and small examination room. The Home is at Hundige, 25 km. south of Copenhagen, and patients are rarely visited by relatives. The youngest patient is 50, but the average age is the same as is seen in normal old folk's homes. The average length of stay (survival time) for patients in the Home is three to five years. Characteristically, the patients have forgotten how to wash, dress, and eat; they are apathetic or aggressive, and usually incontinent. Although unable to express themselves clearly, they can frequently understand everything said to them, and their care is a great challenge to staff. The Home is staffed by two doctors and a psychiatrist, an occupational therapist with three occupational tutors, 28 nurses (establishment: 42) and 115 auxiliary nursing posts. There is no physiotherapist. There are, however, considerably more staff than this, since two-thirds of the employees are part-timers, some only serving at weekends or during holidays. There are three or four nurses on evening duty, and one on at night. The article is illustrated by seven interior photographs.

CANCER

See Abstract No. 1211

NEUROLOGY AND NEUROSURGERY

1243. CHARLES, E. D. and others. **The costs of spinal cord injury.** *Paraplegia*, Edinburgh, 1978, Feb., vol. 15, no. 4, pp. 302-310.

A study of the costs of medical care associated with spinal cord injury is being carried out at the University of Alabama, Birmingham, one of 11 federally financed Model Regional Spinal Cord Centres. Economic data have been obtained on 142 out of 233 patients admitted since the project began. As expected, patients admitted soon after injury require, on average, expenditures of almost $5,000 less than those admitted more than 30 days after receiving the injury. Other results show that: (i) there is little difference in costs or length of stay between tetraplegics and paraplegics; (ii) patients

under 14 and over 60 require shorter lengths of stay and less expenditure; and (iii) spinal cord injuries caused by motor accidents (including pedestrians) involve higher costs and longer lengths of stay than those resulting from other causes, especially acts of violence.

1244. WEBB, S. B. and others. **First year hospitalisation costs for the spinal cord injured patient.** *Paraplegia*, Edinburgh, 1978, Feb., vol. 15, no. 4, pp. 311-318.

This study was carried out to discover the total first year costs to 85 patients suffering from traumatic spinal cord injury. All the patients were covered by the Workmen's Compensation Insurance and were treated in general hospitals in the United States rather than in specialized units. Mean first year hospital costs for all patients were $35,676. The average initial stay in hospital was 184 days and the mean cost was $28,637. Room and board accounted for 52 per cent of costs, special services for 36 per cent and professional services 11 per cent. Major special service costs were physical and respiratory therapy, medical supplies and medicines. Home care costs averaged $4,000 per patient, being higher for those confined to a wheelchair and needing home alterations. When compared with other published studies, the costs presented here are higher, although the difference is reduced when median rather than mean costs are presented. Other reasons for these differences in costs are discussed.

CARDIOLOGY

1245. GORDIS, L., NAGGAN, L. and TONASCIA, J. **Pitfalls in evaluating the impact of coronary care units on mortality from myocardial infarctions.** *Johns Hopkins Medical Journal*, Baltimore, 1977, Dec., vol. 141, no. 6, pp. 287-295.

A statewide study in Maryland hospitals attempted to evaluate the effectiveness of coronary care units (CCUs) by assessing their effect on in-hospital post-infarction mortality. The one-year retrospective study involved 1,156 myocardial infarction discharges. Of all patients treated in the CCUs 30.1 per cent died in hospital compared with 17.8 per cent of those not treated in CCUs. The difference between these treated in CCUs and those not treated in CCUs persisted when analysed by race, sex, age, anticoagulant use and clinical severity. The combined effects of differences in prognostic factors between CCU and non-CCU patients were assessed using a multiple regression model. Adjusted mortality rates in CCU patients were almost twice as high as in patients not treated in CCUs. These results are discussed in the context of previous studies reported and of study designs and methodological issues.

UROLOGY

See also Abstract No. 1227

1246. STANGE, P. V. and SUMNER, A. T. **Predicting treatment costs and life expectancy for end-stage renal disease.** *New England Journal of Medicine*, Boston, 1978, Feb. 16, vol. 298, no. 7, pp. 372-378.

In order to estimate the cumulative 10-year direct medical costs and life expectancy associated with different methods of treatment for end-stage renal disease three treatment transition options were assessed. It is predicted that if 1,000 patients change

their treatment from hospital to home dialysis for each of the 10 years, although the life expectancy of the cohort will not be reduced, there will be a reduction in total costs of $241 million. The same number of patients shifting from hospital dialysis to transplantation will save $279 to $330 million in total costs but reduce their life expectancy by seven to 17 per cent. Shifting from home dialysis to transplantation will reduce costs by $103 to $142 million and life expectancy by 10 to 20 per cent. As new policies for the treatment of renal disease continue to be developed, their effect on costs and life expectancy should be considered.

SURGERY

1247. Operasjonsavdelingen ved Harstad sykehus—beskrivelse og sammenligning med N.I.S. forslag. **[The operating suite at Harstad Hospital: a description and comparison with the recommendations of the Norwegian Institute for Hospital Research.]** *Sykehuset*, Oslo, 1978, vol. 41, no. 2, pp. 71-83.

The new Harstad Hospital, which came into use in January 1977, has on the third floor of its west wing an ear, nose and throat unit with its own operating suite and a central operating suite with four theatres. Between the two is a smaller single-theatre operating suite. This paper discusses these operating facilities in the light of eleven months' experience and compares them with the Norwegian Institute for Hospital Research's recommendations. The small single-theatre suite is used for minor surgery and gynaecology but is also used for acute surgery during the night and in holiday periods: infectious patients can be operated on here with less risk of spreading infection. The central operating suite has an adjoining recovery unit. Details are given of the work flow, equipment and fittings, air-conditioning, staffing, communications system and lighting. The paper is illustrated with two floor plans.

1248. PLANT, J. A. and DEVLIN, H. B. **Planned early discharge of surgical patients.** *Nursing Times*, London, 1978, March 2, vol. 74, no. 9, occasional papers, pp. 25-28.

From 1970 to 1974 a policy of planned early discharge was progressively introduced in Stockton to coincide with the opening and commissioning of the new 1,100-bed North Tees General Hospital. The scheme, which has been in operation for some six years, has been found to be effective at the clinical, social and economic levels. Planning is the key to any early discharge scheme; the procedure followed at Stockton is outlined. The steps necessary in setting up a scheme are: (i) identification of the patients (diagnoses) suitable for inclusion; (ii) description of clinical policies; (iii) consultation with other parties involved; (iv) information for the patient; and (v) audit. Planned early discharge can prove very useful and indeed can release hospital resources for alternative use, but it increases the work load of medical and nursing staff. But the number of general surgical beds in the district has been reduced from 150 to 90. Availability of a custom-built 16-bed short-stay ward has greatly eased the administrative arrangements.

MATERNITY

See Abstract Nos. 1106, 1178, 1233, 1236, 1237

PSYCHIATRY

See also Abstract Nos. 1148, 1173, 1183, 1192, 1195, 1196, 1238, 1242

1249. BLUGLASS, R. **Regional secure units and interim security for psychiatric patients.** *British Medical Journal*, London, 1978, Feb. 25, vol. i, pp. 489-493.

The recent 'open-door' policy of psychiatric hospitals has resulted in National Health Service hospitals being reluctant to admit patients from the Courts on the grounds of lack of security. Neither has provision been made in the district general hospitals for patients needing some degree of security. Thus, these patients are often inappropriately admitted to special hospitals or prisons. The establishment of regional secure units was first recommended in 1974 but little progress has been made owing to: (i) misunderstandings about the type of patient to be admitted; (ii) failure to view the units as part of a comprehensive psychiatric offender service; (iii) insufficient funding; (iv) difficulties over staff pay; and (v) the attitudes of psychiatrists to secure units and closed wards. These difficulties also appear in attempts to set up interim security accommodation in existing psychiatric hospitals. If regional secure units are to serve a useful purpose, their role in the psychiatric service must be more clearly defined.

1250. BENNETT, D. **Community psychiatry.** *British Journal of Psychiatry*, London, 1978, March, vol. 132, pp. 209-220.

This review of the literature covers: the psychiatric hospital and community psychiatry; a comprehensive psychiatric service; a polarization of views on community psychiatry; social psychiatry in community psychiatry; community psychiatric treatment; support and shelter; and organization. Community psychiatry, which has many facets, stems from society's response to social changes which have altered the position of the individual in society. In Britain, it began as an attempt to provide treatment for psychiatric patients outside the psychiatric hospital. Now the term is used to cover a national plan to provide district-based hospital-centred services in which general hospital units and statutory or voluntary social services complement each other. It should aim to employ the available resources and develop others to contain disease, disability and distress for the patient, his family and the community at large. It can only do this if psychiatric and social provisions are co-ordinated and managed on 'organic' organizational lines. A list of 96 references to the literature is included.

1251. HEIM, E. Aufbauschritte der therapeutischen Gemeinschaft in der psychiatrischen Klinik. **[Steps towards a therapeutic community in a psychiatric hospital.]** *Psychiatrische Praxis*, Stuttgart, 1978, Feb., vol. 5, no. 1, pp. 14-24.

The author describes, and sets out in tabular form, how the Schlössli Psychiatric Hospital, Oetwil am See, Switzerland, developed over a period of years from a traditional custodial institution to a therapeutic community. The following phases in the development are identified: orientation and retraining; creation of a model; group dynamics and change of role; departmental autonomy; integration; re-orientation, medical guidance; involvement of the administration; and participation (the open system). The period over which each of these eight phases extended, the resistance experienced, and risks involved for each step, are shown in the table. The paper includes 54 references to the relevant literature.

1252. ZUMPE, V. Die Krankenhausgesetzgebung in der Bundesrepublik Deutschland und ihre Auswirkung auf Psychiatrische Krankenhäuser. **[Hospital legislation in the Federal Republic of Germany and its effect on psychiatric hospitals.]** *Psychiatrische Praxis*, Stuttgart, 1978, Feb., vol. 5, no. 1, pp. 1-13.

The author outlines the provisions of 1972 Federal Hospital Financing Act and of consequential legislation promulgated by the *Länder* and discusses their effect on psychiatric hospitals. Examples are given of the legislation of individual *Länder* and its implications for some psychiatric hospitals. This legislation is considered to be a disadvantage for psychiatric hospitals because of its requirement that hospitals be divided into departments by specialty and because there is no requirement for professions other than doctors and nurses to be represented on boards of management. The latter point is considered to be important in the case of psychiatric hospitals.

1253. FELDMAN, S. Administracion en salud mental. **[Administration in mental health.]** *Policlinica*, Barcelona, 1978, Jan., no. 43, pp. 38-40, 42-44, 46-47.

The mental health services are to a large extent administered by psychiatrists who have had little or no training in administration. Managing these services is a difficult matter because they depend on public monies and are subject to a great deal of government control; some groups of psychiatric patients are extremely dependent and it is difficult to provide an appropriate and humane programme for them; there is a stigma associated with the use of these services, and the service must always seek to inspire confidence. The author suggests that research should be done on the administration of mental health services and that specific training be provided for administrators. He discusses new trends in the organisation of these services, particularly those being developed in the United States.

1254. SCHWEITZER, L. and SU, W.-K. **Population density and the rate of mental illness.** *American Journal of Public Health*, Washington, 1977, Dec., vol. 67, no. 12, pp. 1165-1172.

Brooklyn, New York, is especially suitable for a large scale study of psychiatric hospital use, as psychiatric care for its 2.6 million people is primarily provided at a large municipal hospital, Kings County Hospital. Data from a sample consisting of all patient admissions to the hospital for eight representative months in 1971, together with admissions to other New York City hospitals from Brooklyn, were used to develop four different rates of admission: Kings County Hospital—new; boroughwide—new; Kings County Hospital—total; and boroughwide—total. The independent variables used to predict the rates included the following measures: socioeconomic status; ethnicity; migration; and four different measures of population density. Measures of household and family contact were found to be significantly correlated to the four rates of hospital use. These same measures carried unique components that were also significantly related to service use. Other measures of density such as people per acre and structures per acre were found to be unrelated to the rates of psychiatric use. These results suggest that if density does produce mental illness its likely mechanism of action will be routed through household contact.

1255. VOINESKOS, G. and DENAULT, S. **Recurrent psychiatric hospitalization.** *Canadian Medical Association Journal*, Ottawa, 1978, Feb. 4, vol. 118, no. 3, pp. 247-250.

A study of a group of psychiatric patients at high risk for recurrent admission to hospital revealed that these patients were characterized more by features relating to environmental supports than by diagnosis. This operational definition for recurrent admission (five or more admissions during the two-year period preceding the latest admission) was effective in identifying this group; this is the first reported instance in which the definition has specified a certain number of admissions within a time-limited period. The findings of the study, as well as an analysis of case histories and consumer opinion, led to the design of a pilot therapeutic programme for patients with recurrent admissions. Readmission statistics are useless or misleading as measures of hospital effectiveness and efficiency; what matters is the way the former patients behave in the community after discharge. Rather than simply trying to reduce the readmission rate, psychiatric facilities should be examining the types of persons who are admitted recurrently to develop programmes aimed at improving the functioning of these people in the community.

1256. WEYERER, S. and DILLING, H. Zur Bedeutung der geographischen Lage psychiatrischer Krankenhäuser für Aufnahmeraten und Aufenthaltsdauer. [**On the importance of the geographical position of the psychiatric hospital on the admission rates and hospitalization period in West Germany.**] *Psychiatrische Praxis*, Stuttgart, 1978, Feb., vol. 5, no. 1, pp. 58-64.

On the basis of experience at the Gabersee Psychiatric Hospital, Upper Bavaria, an analysis is presented of the relationship between admission rates, length of stay and chance of discharge and the distance between the patients' home and the hospital. More patients living near the hospital were admitted, and had longer stays in hospital, than those living at a distance. Viewed on a long-term basis the chance of discharge was not more favourable for patients whose homes were nearer to the hospital. Distance from the hospital did not affect the number of voluntary admissions. The analysis shows that future hospitals should be located nearer to the districts they serve and that there should be more co-operation between in-patient care, 'semi-in-patient care', and out-patient care, with a resulting reduction in bed needs.

1257. GILLOTT, J. S. and others. **The organisation and management of patient training services at Darenth Park Hospital.** *Hospital and Health Services Review*, London, 1978, March, vol. 74, no. 3, pp. 77-81.

Until 1973 patient training at Darenth Park Hospital, a large hospital for the mentally handicapped, was organized on a departmental basis; the deficiencies of this approach are outlined. As a first step in developing a comprehensive, multidimensional scheme, a multidisciplinary activities team was formed. It first produced a detailed policy statement describing the structure and training philosophy. It was decided that there should be a graded training scheme whereby patients could move on a ladder up or down, or occasionally sideways, so as to realize their full potential. A series of multi-dimensional centres was set up, each offering a variety of activities geared to a specific grouping of patients with similar levels of functioning and with common training needs.

All were organized on a mixed sex basis. The co-ordinator of patient training and education, together with a deputy, is supported by an activity leader. Each leader manages a training and education centre, links the training services with the clinical teams, and controls a number of instructors who operate the programmes of training for each of the patients.

1258. LANDE, J. van de. Schipperen tussen uitersten. **[Steering a middle course in psychiatric hospital care.]** *Ziekenhuis*, Utrecht, 1978, Feb. 15, no. 4, pp. 90-93.

The author discerns various contrasts in psychiatric care. Firstly the initial intensive psycho-therapeutic treatment to try and prevent patients becoming hospital cases is compared with treatment for long-term solutions. Both types of treatment are becoming increasingly professional with a risk of polarization. The speaker calls for changes in training to encourage close co-operation, such as a basic nurse training for psycho-social workers and raising of qualifications in general. Secondly, there are the problems of freedom and enforcement. Too much freedom is unsettling for patients who need a structured and secure environment and in cases of impulsive behaviour, such as aggression, or of suicidal tendencies, this could spell disaster. Here, enforcement of restrictions, combined with medication, may be necessary for both voluntary and involuntary patients. The author would like to keep these to a minimum, followed by group therapy. Thirdly, there is the contrast between society and the institution. There is the accepted tendency to try and return patients to society after treatment, yet in practice society frequently rejects them. St. Bavo Hospital has set up a contact commission to deal with integration complaints and there are plans for a complex of houses, each to accommodate five patients, in the hospital grounds.

1259. GREENSPAN, J. **Medical audit: an effective arm of quality assurance.** *Hospital and Community Psychiatry*, Washington, 1977, Dec., vol. 28, no. 12, pp. 901-903.

In 1975 a medical-nursing audit committee was formed at the Institute of Pennsylvania Hospital to conduct retrospective reviews of discharged cases, using the audit system for psychiatry developed by the Joint Commission on Accreditation of Hospitals. Treatment of 50 patients placed on a self-injury precaution programme was measured against four criteria selected by the committee. An analysis of the deficiencies discovered in the programme resulted in the holding of a staff workshop on self-destructive behaviour. A second audit made several months later showed a greater compliance with the criteria laid down. Thus, despite the many variables, medical audit can be an effective tool for planning and monitoring a course of psychiatric treatment.

1260. COHEN, D. **Psychiatry at home.** *New Society*, London, 1978, March 2, vol. 43, no. 804, pp. 486-487.

Napsbury Hospital, St. Albans, Herts., runs a continuous crisis intervention service. When a patient is referred by a general practitioner, a psychiatrist and a social worker visit his home and do their best to prevent admission. Trying to cope with problems at home offers a patient and his family a chance to work their problems through. On occasions admission is necessary, but the admission ward of only 48 beds has a strict regime and does not allow a patient to become too dependent. As a result of their crisis service, Napsbury admits 60 per cent fewer patients than most psychiatric hospitals.

1261. KASTRUP, M. **Psychiatric out-patients in a geographically delimited area.** *British Journal of Psychiatry*, London, 1978, March, vol. 132, pp. 259-264.

A three-month study of the use of the local psychiatric out-patient clinic by the geographically delimited population of Århus, Denmark is reported. Of the 307 males and 580 females contacting the clinics, 107 males and 148 males were new referrals, corresponding to 1.25 males and 1.48 females per 1,000 inhabitants aged 15 years or more. The ratio of treated females increased from 0.87 in the 15 to 24 years age group to 2.22 for patients of 55 years or more. Manic-depressive psychoses accounted for 43 per cent of all main diagnoses; it was followed by schizophrenia and other functional psychosis in males and neuroses and other functional psychoses in females. The clinic collaborated closely with in-patient facilities. Thus about 75 per cent of the referrals were from the in-patient facilities and 70 per cent of the discharged out-patients were admitted to hospital.

1262. KLOTZ, S. Aufgaben des Krankenpflegepersonals in der Kinder und Jugendpsychiatrie. **[Tasks of nursing staff in child and youth psychiatry.]** *Deutsche Krankenpflegezeitschrift*, Stuttgart, 1978, Jan., vol. 1, no. 1, pp. 31-32.

This description of the nurses' role in the psychiatric care of children and young people is based on experience at the Wunstorf State Hospital, Lower Saxony. The children's and young people's department here has 40 beds, divided into three wards, and has so far concentrated on diagnosis and short-term treatment. Patients are cared for by teams of nurses, teachers, occupational therapists and remedial gymnasts who co-operate with doctors, psychologists and social workers. Care has to be taken to strike the correct balance between too much compulsion and a too indulgent attitude to patients: here the nurse has an important part to play. For the future, nurses should take part in the home care of discharged patients, again in co-operation with doctors, psychologists and teachers. They should also have contact with schools and help when crises occur.

1263. ROOS, P. and MCCANN, B. M., editors. **Major trends in mental retardation.** *International Journal of Mental Health*, White Plains, N.Y., 1977, vol. 6, no. 1, pp. 3-119.

The six papers in this issue deal with the following aspects of the care of the mentally handicapped in the United States: (i) major trends in mental handicap; (ii) institutionalization and its alternatives for mentally handicapped people; (iii) the education and community support of severely handicapped people; (iv) human and legal rights of mentally handicapped persons; (v) emotional disorders in the mentally handicapped; and (vi) parents of mentally handicapped people. Each paper has an extensive bibliography.

AUTHOR INDEX

Allsted, T. 1159
Anagrius, L. 1128
Azzi, A. 1183
Backschat, G. 1234
Baker, J. A. 1216
Barker, D. 1224
Bayles, M. D. 1169
Bennett, D. 1250
Birt, C. A. 1136
Bluglass, R. 1249
Bondy, P. K. 1138
Bootman, J. L. 1212
Bridgman, J. F. 1207
Bucceri, P. 1216
Buffa, F. 1183
Burns, M. W. 1193
Butler, E. A. 1163
Butts, M. 1157
Calman, K. C. 1211
Casas, S. 1117
Charles, E. D. 1243
Clark, M. O. 1202
Cohen, D. 1260
Cotnoir, G. M. 1219
Cox, K. R. 1168
Cuccia, A. 1200
Denault, S. 1255
Department of Health and Social Security 1221
Devlin, H. B. 1248
Dilling, H. 1256
Dremont, P. 1118
Dunkelberg, H. 1184
Ekedorff, L. 1122
Evans, D. J. 1131
Feder, J. M. 1170
Feldman, D. C. 1134
Feldman, S. 1253
Fernow, L. C. 1160
Ferster, G. 1157
Fowler, D. R. 1173
Friedman, E. 1226
Fusi, A. 1223
Geyman, J. P. 1140
Gilligan, J. E. 1201
Gillott, J. S. 1257
Glöckner, A. 1196
Goldsmith, S. B. 1228
Gordis, L. 1245
Gorzoni, S. 1183
Greenspan, J. 1259
Grimes, J. A. 1192
Guyot, J.-C. 1139
Hagelsten, J. O. 1210
Harcus, A. W. 1215
Heim, E. 1251
Hildebrand, R. 1174
Hilker, T. L. 1231
Holgate, B. 1225
Hollenberg, C. H. 1137
Holm, A. L. 1219
Honoré, O. 1190
Hood, J. C. 1218
Ibsen, E. 1110
Jarocha, H. 1220
Johansson, A. 1240
Johansson, W. 1132
Kärnek, R. 1112
Kastrup, M. 1261
Kaufman, R. L. 1219
Keith, J. G. 1206
Kelfve, S. 1129
Kempf, R. 1143
Kindler, U. 1182
Kitchen, W. H. 1236
Klotz, S. 1262
Kugele, L. 1148
Lande, J. 1258
Langley, G. R. 1137
Lazzara, A. 1135
Lemery, B. 1167
Lesky, E. 1181
Levine, C. 1205
Lindell, B. 1132
Loebs, S. F. 1171
Lotz, H. W. 1126
Lunteren H. van 1123
McCann, B. M. 1263
McColl, I. 1160
McGhan, W. F. 1212
McKibbin, R. C. 1142
Mackie, C. 1160
Mäkelä, V. 1114
Maloney, T. J. 1187, 1213
Manez, J. 1144
Marshall, E. A. 1165
Mauet, A. 1205
Merveille, F. 1185
Michies, J. J. M. 1162
Millard, P. H. 1241
Mitter, C. J. 1197
Morandini, M. 1186
Morris, S. 1235
Moscovice, I. 1229
Müller, H.-W. 1109
Murphy, J. E. 1218
Naggan, L. 1245
Øie, J. 1111
Orth, G. 1156
Pagá, S. S. 1155
Palm, S. 1130
Palmer, H. 1166
Parkes, C. M. 1204
Parkin, D. M. 1227
Paulley, J. W. 1107
Payne, J. P. 1209
Perry, H. B. 1150
Peter, E. 1208
Petersen, K. 1116
Petterson, B. 1113
Plant, J. 1149
Plant, J. A. 1248
Pot, H. 1179
Price, D. G. 1161
Ragouilliaux, R. 1119
Reid, J. 1207
Rhodes, P. 1106
Riordan, L. 1203
Roos, P. 1263
Rörig, R. 1198
Rowland, C. R. 1212
Roy, R. N. D. 1236, 1237
Royal College of Nursing 1141, 1199
Ruchlin, H. S. 1239
Salling, A.-L. 1242
Salvador, P. 1186
Samuels, W. O. 1173
Schonbrun, M. 1172
Schoppe, W. D. 1182
Schweitzer, L. 1254
Selman, A. C. 1133
Smales, O. R. C. 1233
Smith, R. B. 1215
Smith, W. D. A. 1188
Soler, E. G. 1153
Søndergård, W. 1116
Spaziante, G. 1108
Squires, N.-M. 1177
Stange, P. V. 1246
Strosberg, M. A. 1205
Su, W.-H. 1254
Sullivan, F. W. 1173
Sumner, A. T. 1246
Swientek, C. 1195
Tallett, E. R. 1217
Taylor, P. J. 1164
Teufel, W. L. 1230
Tompkins, R. K. 1151
Tonascia, J. 1245
Toubon, P. 1185
Trigari, T. 1223
Trunkey, D. D. 1230
Tyndall, R. M. 1232
Vad, B. 1146
Verwey, J. A. 1145
Visser, A. 1191
Voineskos, G. 1255
Volicer, B. J. 1193
Wadsworth, M. E. J. 1235
Waldorf, E. 1182
Wangen, A. 1154
Webb, S. B. 1244
Wells, P. G. 1238
Westman, M. 1147
Weyerer, S. 1256
Whittle, B. A. 1215

Williams, A. 1152
Williams, T. 1207
Williamson, S. 1178
Zourbas, J. 1185
Zumpe, V. 1252

Addresses of publications referred to in this issue

JOURNALS—(*The price of a single issue is given where known*)

American Journal of Hospital Pharmacy, 4630 Montgomery Ave., Washington, D.C. 20014, U.S.A. $3.50
American Journal of Public Health, 1015 Eighteenth St., N.W., Washington, D.C. 20036, U.S.A. $3.00
Archives of Disease in Childhood, British Medical Association, Tavistock Sq., London WC1H 9JR.
Australian Journal of Hospital Pharmacy, 240 Chapel St., Prahran, Victoria 3181, Australia.
British Journal of Psychiatry, Headley Bros. Ltd., Ashford, Kent TN24 8HH, England. £4.50
British Medical Journal, British Medical Association, Tavistock Sq., London WC1H 9JR.
Canadian Medical Association Journal, P.O. Box 8650, Ottawa, Ont. K1G 0G8, Canada.
Chest, Heart and Stroke Journal, Tavistock House North, London WC1H 9JE.
Community Health, 42-44 Triangle West, Bristol BS8 1EX, England. £0.75
Deutsche Krankenpflege–Zeitschrift, Kohlhammer, Postfach 747, Urbanstr. 12-14, 7000 Stuttgart 1, Western Germany.
Deutsche medizinische Wochenschrift, Georg Thieme Verlag, Herdweg 63, Postfach 732, 7000 Stuttgart 1, Western Germany. DM4
Gestions Hospitalières, 2 rue Jules-Verne, 78200 Mantes-la-Jolie, France. 30F.
Health Trends, Department of Health and Social Security, Room 704, 6 St. Andrew St., London EC4A 3AD. £0.10
Hospital Administration in Canada, 1450 Don Mills Rd., Don Mills, Ont. M3B 2X7, Canada. $1.50
Hospital & Community Psychiatry, 1700 18th St. N.W., Washington, D.C. 20009, U.S.A. $2.00
Hospital Engineering, Earlsport Publications, 33 Ludgate Hill, London EC4. £1.70
Hospital Financial Management, 666 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $1.75
Hospital and Health Services Administration, American College of Hospital Administrators, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $1.50
Hospital and Health Services Review, 75 Portland Place, London W1N 4AN. £0.75
Hospital Pharmacy, J. B. Lippincott, East Washington Sq., Philadelphia, Pa. 19105, U.S.A. $2.00
Hospitals, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A. $1.50
International Journal of Mental Health, International Arts and Sciences Press Inc., 901 N. Broadway, White Plains, N.Y. 10603, U.S.A.
Instelling-Management, Postbus 1198, Nieuwe Achtergracht 104, Amsterdam-1004, Netherlands.
Johns Hopkins Medical Journal, Johns Hopkins University Press, Baltimore, Md. 21218, U.S.A. $4.00
Journal of the American College of Emergency Physicians, 241 E. Saginaw, East Lansing, Mich. 48823, U.S.A. $2.50
Journal of Family Practice, 292 Madison Ave., N.Y. 10017, U.S.A.
Journal of Health Politics, Policy and Law, Duke University Press, P.O. Box 6697, College Station, Durham, N.C. 27708, U.S.A. $9.00
Journal of the Royal College of General Practitioners, Update Publications, 33-34 Alfred Place, London SW7 1PU.
Journal of the Royal Society of Medicine, Academic Press Ltd., 24-28 Oval Road, London NW1 7DX.
Krankenhaus, Postfach 747, Urbanstrasse 12-16, 7 Stuttgart 1, Western Germany.
Krankenhaus Umschau, Postfach 11 49, Oskar-von-Miller-Strasse 5, 8650 Kulmbach (Bayern), Western Germany.
Medical Care, J. B. Lippincott, East Washington Sq., Philadelphia, Pa. 19105, U.S.A. $4.00
Medical Journal of Australia, P.O. Box 116, Glebe, N.S.W. 2037 Australia.

Middle East Health Supply & Service, Surrey House, 1 Throwley Way, Sutton, Surrey SN1 4QQ, England. £1.50
Modern Geriatrics, Empire House, 414 High Rd., London W4.
New England Journal of Medicine, 10 Shattuck St., Boston, Mass. 02115, U.S.A., *and* c/o Flarepath Printers Ltd., Old Parkbury Lane, Colney St., St. Albans, Herts. AL2 2ED, England.
New Society, New Science Publications, King's Reach Tower, Stamford St., London SE1 9LS. £0.25
Norsk Sykehustidende, Pilestredet 1, Oslo, Norway.
Nursing Mirror, Surrey House, 1 Throwley Way, Sutton, Surrey, SM1 4QQ, England. £0.18
Nursing Research, 10 Columbus Circle, New York, N.Y. 10019, U.S.A. $3.00
Nursing Times, Macmillan Journals Ltd., Little Essex St., London WC2R 3LF. £0.18
On Call, 5a Warwick St., London W1R 5RA. £0.30
Ospedale, Corso Turati 46, 10128 Torino, Italy. L.1.000
Paraplegia, 43-45 Annandale St., Edinburgh EH7 4AT, Scotland. £3.50
Policlinica, Provenza 88, Barcelona 15, Spain.
Practitioner, 43-45 Annandale St., Edinburgh EH7 4AT, Scotland.
Psychiatrische Praxis, Georg Thieme Verlag, Herdweg 63, Postfach 732, 7000 Stuttgart 1, Western Germany.
Radiography, 14 Upper Wimpole St., London W1M 8BN.
Sjukhuset, Hallegatan 13, 417 02 Göteborg, Sweden. 7.00 Sw.kr.
Sygeplejersken, Vimmelskaftet 38, Postbox 1084, 1008 København K, Denmark.
Sykehuset, Askergt. 2, Oslo 4, Norway.
Techniques Hospitalières, 17/19 rue Danton, 94270 Le Kremlin-Bicêtre, France. 25F.
Tecnica Ospedaliera, via Moscova 46/9, 20121 Milano, Italy.
Tidsskrift for danske Sygehuse, Amtssygehuset, 2600 Glostrup, Denmark.
Tijdschrift voor Sociale Geneeskunde, Texelstraat 76-80, Postbus 384, Amstelveen, Netherlands. fl.5.95
Topics in Health Care Financing, 20010 Century Boulevard, Germantown, Md. 20767, U.S.A. $12.00
Trustee, 840 North Lake Shore Drive, Chicago, Ill. 60611, U.S.A.
Voeding- en Huishoudgids, Tesselschadestraat 18-22, Amsterdam, Netherlands.
Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, Wollgrasweg 49, D-7000 Stuttgart 72, Western Germany.
Ziekenhuis, Oudlaan 4, Utrecht, Netherlands. fl.3.00

PUBLISHERS

Churchill Livingstone, 15, 16 & 17, Teviot Place, Edinburgh, EH1 2XX, Scotland, *and* 104 Gloucester Place, London W1H 4AE.
Department of Health and Social Security, Alexander Fleming House, Elephant & Castle, London SE1 6BY.
Poynter (Davis) Ltd., 20 Garrick St., London WC2E 9BJ.
Royal College of Nursing, 1a Henrietta Place, Cavendish Sq., London W1M 0AB.

Printed in England for Her Majesty's Stationery Office by Holmes & Sons (Printers) Ltd. Andover, Hampshire.

Dd 596004 K11 8/78 10457

HER MAJESTY'S STATIONERY OFFICE

Government Bookshops

49 High Holborn, London WC1V 6HB
13a Castle Street, Edinburgh EH2 3AR
41 The Hayes, Cardiff CF1 1JW
Brazennose Street, Manchester M60 8AS
Southey House, Wine Street, Bristol BS1 2BQ
258 Broad Street, Birmingham B1 2HE
80 Chichester Street, Belfast BT1 4JY

Government Publications are also available through booksellers

ISBN 0 11 722635 1
ISSN 0018 5507